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SURVEY OF THE STATUS OF RESEARCH IN GUIDANCE AND COUNSELING.

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THE FIVE PAPERS CONTAINED IN THIS REPORT WERE PRESENTED AT A CONFERENCE HELD AT THE UNIVERSITY OF GEORGIA, ATHENS, JANUARY 25-27, 1961. THE PRIMARY PURPOSE OF THE CONFERENCE WAS TO EXAMINE THE STATUS OF RESEARCH IN COUNSELING AND TO STIMULATE INTEREST IN PLANNING AND IMPLEMENTATION OF NEW PROGRAMS OF RESEARCH. RESEARCH ON COUNSELOR TRAINING PROGRAMS IS LIMITED BY CERTIFICATION REQUIREMENTS AND SIMILARITY OF PROGRAMS. IT IS SUGGESTED THAT REGIONAL CENTERS MIGHT BE SET UP COMBINING TRAINING AND RESEARCH WHERE DIFFERENT SITUATIONS ARE AVAILABLE FOR TRYOUT. (LP)

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Back

Ed Hindman

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Report of Project on
**SURVEY OF THE STATUS OF RESEARCH
IN GUIDANCE AND COUNSELING**

conducted at

The University of Georgia
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INTRODUCTION

The five papers contained in this report were presented at a conference held at the University of Georgia, Athens, Georgia, January 25-27, 1961. The primary purpose of the conference was to examine the status of research in counseling and to stimulate interest in planning and carrying-out new programs of research.

Following the presentation of each report, all participants analyzed and discussed the contents of the paper. A summary of the discussion follows each of the reports. While it is apparent that much of the real flavor of any discussion cannot be captured in a written summary, it is believed that the summary provides a statement of the highlights as identified by the participants.

SOME OBSERVATIONS ON RESEARCH
IN COUNSELOR PREPARATION*

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The Conference on "Issues in Counselor Education" held in Chicago last summer under the sponsorship of the U. S. Office of Education was a kind of communicative procedure which this participant considered very desirable. So when an invitation came early last November from the Cooperative Research Bureau of the U. S. Office of Education to engage in another national conference on "Counselor Preparation", it carried a clear professional obligation to take part.

Viewpoints expressed in this paper are not those of a research specialist but the opinions of a former counselor, state supervisor of guidance and director of a counseling center who has since descended in the occupational scale to the position of counselor-educator. During the span of his professional experience, the writer has engaged in a number of investigative studies in the field of counseling and guidance that may have had some usefulness but they have not been rigorously scientific. Hence he cannot speak with authority but only as one of the scribes.

The company of scribes is a vast one. Indeed as he reviewed the literature in preparation for this paper, the writer is struck with the thought that most of us-- even the most scientific -- are among this company because it has been impossible for us to get outside of subjective evaluations and to occupy a position of objective

*An address at a Conference on "Research in Guidance and Counseling", University of Georgia, January 25, 1961.

judgment. This is, of course, an old and unsolvable problem in the social sciences; someone has said that there are no experts in the social sciences because -- unlike the physical sciences -- neither the objects of experimentation nor their situations remain fixed and static; unknown and uncontrollable variables are present; evaluations of results are commonly subjective and outcomes are not probable by observations in the public domain. To make matters worse, it is contended that the results of one demonstration may not be replicable in another because the unique personalities of the demonstrators so affect outcomes that what is a good procedure for one may not work for another.

We may take comfort, of course, in the fact that much research which has been considered rigorously scientific in the past may not, operationally, have been so terribly scientific after all, as an APA Committee on "Education for Research in Psychology" pointed out in its report in April, 1959.

Anyway, whether our studies may correctly be labelled research or whether they may properly be called scientific, we need to continue to conduct them. Presumably we can do this on various levels of usefulness. Edwards and Cronbach have indicated four such levels: technique (or instrument) research; survey research; administrative (or applied) research; and critical research. Forms of research later discussed in this paper will largely be on the first three levels.

Summary of Research in Counselor Preparation. It does not seem to be particularly worthwhile to present any extensive survey of

the literature at this time since conference members will all be more or less familiar with it and with the main conclusions reached. Studies in counselor preparation seem largely to have fallen into a few main categories: (a) counselor functions and competencies; (b) follow-up assessments of training among graduates of counselor training programs; (c) polls and surveys on field practices and problems; (d) formulations of expert judgments on policy by committees and conferences.

Of great significance in counselor preparation have been more basic studies such as those by Berdie and associates in "Counseling Interview Research"; Super and associates in "Career Pattern Studies"; Rogers and associates in "Techniques of Client-Centered Therapy". Also of great interest have been treatises on research philosophy and methodology by Ralpy Tyler, Cronbach, Patterson and others.

Perhaps the outstanding impression gained from any survey of the literature is that current programs of counselor preparation are largely based on empirical judgments on what the training should be-- judgments formed by individual counselor-trainers and by committees-- derived from such sources as: their own experience; field observations and surveys; research on career pattern development and counseling techniques; evaluation of counseling and training outcomes; conditions and requirements in training institutions; expectations among students, employers, institutional officials and citizens; certification and licensing standards.

In their analyses of what training programs should be, counselor-educators have tended to set up separate and distinct conceptual

patterns, not always articulated, out of which they have eclectically and randomly derived and synthesized their conclusions. For example, all of us have some kind of a subjective model of what we consider to be the ideal counselor and the ideal trainee, we have a conception of the counselor's role (which, incidentally, may be drastically shaken every time we go into a school), and a model of the psycho-dynamics and developmental growth of the counselee.

Weaknesses of the empirical and eclectic approach have been, among others, that:

Studies have been excessively fragmentary and piecemeal, dealing with only a single aspect of the total field unrelated to other phases or factors in the field.

Inadequate attention has been given to the basic assumptions underlying our a priori judgments; in fact, we have not yet reached common agreement on what the whole guidance and counseling process is about anyway.

Unexamined to any appreciable degree have been crucial relationships between different operational sectors of the field of activity: e.g., (a) the role of the counselor as related to the whole guidance program of the school; (b) the relation between the guidance program and the school culture in which it has to operate; (c) between the aspirations of counselor-educators and the actual operations of counseling in field situations; (d) between conceptions of school administrators and those of counselors.

As a number of counselor-educators have previously indicated, we still do not have means-ends patterns worked out so that we know which procedures in guidance may produce what results in typical field situations.

It is true, however, that in our pluralistic and individualistic research activity, there has been a constant interplay between the empirical judgments of the counselor-trainers and the conclusions

of the various research studies. Through such continuous exchange, our judgments hopefully have become more and more sophisticated, the perspective of the whole field has risen, and training programs have undergone progressive improvement. Actually, the empirical judgments arrived at by the field scanners and computing machines inside the skulls of experienced counselor-educators have not, on the whole, been too bad, representing as they have, intricate and complex syntheses of variant field factors. But now a scattered and mixed empirical and eclectic approach no longer seems adequate; we have to re-examine our foundations of judgment.

A Focus for Research in a Complex Field

What we seek, of course, is a decent epistemological basis for deciding upon research and upon programs in the field of counselor preparation. Models for making up programs of counselor preparation commonly start with the functions or competencies which counselors should possess. Formulations of functions or competencies are usually derived from the residual images and unarticulated assumptions among counselor-educators.

But we can no longer take for granted that a statement of functions, prepared by a committee, no matter how high the standing of the committee, constitutes an adequate basis for planning programs of counselor preparation. We have to inquire for what purposes or intended outcomes the functions are being directed and in what settings the functions are operating.

For example, if our purpose in conducting guidance is to make successful educational placements in post-secondary educational

institutions largely by means of classificational procedures, then our counselor-trainees should be trained to perform such guidance functions. But if we seek to fit our trainees to deal with commonly recurring problems among school pupils as they arise, they will have to be trained in a somewhat different way. And if we want to prepare counselors to help youth to develop more mature educational-vocational outlooks on an individual basis through some systematic developmental form of guidance education, then our training program must have a still different pattern.

It is true that we may partially evade the necessity of coming to some decision about purpose and about governing strategy by training modally for maximum general usefulness in a variety of common situations. And that is what many of us do, I think. The difficulty is that, in such a case, our programs may become general survey types of preparation with insufficient depth and effectiveness.

Serial Listing of Determinants Underlying Formulations of Training Programs.

Instead of basing our point of departure in counselor preparation on a formulation of functions we might consider beginning a little farther back in an analysis of individual and social needs for guidance. This analysis should involve interdisciplinary conceptions and contributions with individual and social psychology in a central role.

Fundamental conceptual determinants will undoubtedly exert great influence on policy formulation. In the speaker's opinion, basic conceptual maps may best be shown in the form of models which are rough representations of psycho-social theory in education and

guidance, derived from interdisciplinary sources. In previous writings, (1) he has attempted to outline an elementary model of this kind which he has called the "self-situational" field. This theory has the advantage of indicating subjective and objective intra- and inter- relationships and is, therefore, applicable to many problems in counseling as well as to program processes of guidance in schools. Whether a model of this type were employed or not, intensive interdisciplinary cooperation would be required in studies looking toward the formulation of fundamental guidance theory.

With a stronger foundation in conceptual theory, we might then consider the outcomes of the guidance process that might be sought in accord with basic and comprehensive formulations of theory. If outcomes that we want to attain could be more clearly delineated then we might study the guidance conditions and procedures which might produce the outcomes. At that point, we should be in a much better position to make a declaration of appropriate functions -- as shown on the accompanying sheet.

Research might be focussed on the set of determinants shown as a core within the dotted lines but ought to be preceded by analysis of needs, demands and related consequences as indicated in Item No. 1. Also, the results of more sharply focussed experimentation in the core sector might materially assist in derivations from experimental results that might then be made as to types of trainee desired, forms of learning experience and types of program to be set up. Results of previous research in any of the proposed areas should, of course, be noted and used where applicable.

A SERIAL LISTING OF DETERMINANTS AFFECTING
FORMULATION OF COUNSELOR TRAINING PROGRAMS

1. Individual needs and social demands for what is called the guidance process.
2. Fundamental psycho-social theory related to personal-social needs and conditions.
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3. Specific purposes and attainable outcomes in accord with personal-social needs and conditions that may be fulfilled by systematic means in guidance and counseling.
4. The conditions, procedures and strategies which may be feasibly, economically and effectively created and employed to produce the designated outcomes.
5. The professional functions comprising the major activities involved in creating the conditions, procedures and strategies necessary to bring about the designated outcomes.
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6. The types of functionaries necessary to perform the functions to create the conditions and conduct the procedures to bring about the outcomes.
7. The kind of learning experiences required to enable the functionaries to perform the functions that will create the conditions and procedures to bring about the designated outcomes.
8. The types of professional preparation programs comprising the essential learning experiences required to prepare the functionaries to perform the functions that will create the conditions and procedures to bring about the designated outcomes.
9. The outcomes (as related to individual needs and social demands) brought about by functionaries trained in programs of professional preparation.

Phases of Research in Counselor-Training

We may now specify some of the constituent phases of a program

SUPPLEMENTARY CONSIDERATIONS

1. A preliminary analytical and conceptual state includes (a) the

(a) Ordinarily, counselor-educators have begun with the fifth step, - namely a definition of functions, - then have gone on to build training programs that will prepare counselors presumably to conduct the prescribed functions. Since a choice of functions, however, has ordinarily been influenced by many assumptions (stated and unstated) about outcomes and procedures that may not be justified, it seems necessary to go further back to more fundamental considerations in establishing basic departures for research in counselor preparation.

(b) The essential core of the serial list of determinants comprises these items: desired outcomes (No. 2), conditions, procedures and strategies (No. 3) required to bring about the outcomes, and the professional functions (No. 4) necessary to create the conditions and conduct the procedures for producing the outcomes.

(c) Research designs may be focussed on experimentation involving outcomes, procedures and functions in related combinations but ought to be preceded by analysis of needs, demands and related consequences as indicated in No. 1 item. Also the results of more sharply focussed experimentation in outcomes, procedures, and functions may materially assist in derivations that can then be made from experimental results as to functionaries, learning experiences and programs of professional preparation. Experimentation and demonstration in the latter area will, of course, be desirable if they can be properly designed and carried out.

(d) In various types of investigational studies (see mention in subsequent pages) conducted in the above sequence, essential coordinated or preparatory research must be conducted in the construction of evaluative and selective instruments and measures as well as the formulation of appropriate criteria of judgment.

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Phases of Research in Counselor-Training.

We may now specify some of the constituent phases of a program of research in counselor-training in six categories.

1. A preliminary analytical and conceptual state includes: (a) the delineation of the basic needs of individuals and of society that relate broadly to the realm of guidance and counseling operations, (b) the formulation of comprehensive professional psycho-social theory as basic for guidance philosophy and policy, (c) the designation of purposes and of particular outcomes that are sought through the operation of the professional process of guidance and counseling--outcomes that can be assessed as occurring or not occurring among individuals or groups that are subject to the processes. The designation of the desired outcomes is the crux of the analytical work of the first stage.

Outcomes designated might be divided into those that are intrinsically related and those extrinsically related: e.g., intrinsically related: understanding self-situational relations, planning ability, ongoing maturation of interests and values, active motivation toward future goals, maximizing of potential; extrinsically related: observed effectiveness in meeting problem-situations, a defined educational-vocational outlook or plan, social effectiveness displayed in real situations, application of ability potential to an occupational pursuit.

It may be pointed out that one fundamental flaw in the previous reasoning is that the basic needs are really perceived through the lens of existing professional processes and conditions and that the resulting perception really determines how the desired outcomes shall be formulated. Thus, we should still be confined within the

perceptual prison of our existing ideas of appropriate functions. That there is a lot of truth in such an assertion cannot be denied, but we have to find some point of departure as close to a rock-bottom basis as possible. Starting with an analysis of individual and social needs for education and guidance -- that relate to what has been done and which may be done through the forms of institutional process we call educative -- is one attempt to reach fundamental considerations. More than circularity is actually involved here since there is a useful reciprocal check between broadly conceived needs and comprehensively perceived educational processes to meet these needs, out of which can come new conceptions about particular guidance outcomes.

The choice of outcomes that we seek to attain through a guidance process has to be largely a matter of value judgment. All we can say is that such judgment should be made as consciously as possible in the light of basic conceptions of need and purpose.

2. Following upon the preliminary analytical and conceptual stage, can be discerned a second level of approach which we may call the instrumental stage. At this level there is the necessity of constructing evaluational tools, instruments and procedures in order to assess whether or not outcomes are being achieved and in what degree. If we ask how we can tell whether consequences are being produced, whether sought-after capabilities are actually developing, whether progressive movement is taking place, etc., the answer must be through some kind of measuring-stick, however rough.

That we are not entirely bereft of such tools in our business is evidenced by the fact that we have instruments like "Q" sorts,

self-appraisal forms, projective tests, attitude scales, sentence completion tests, interest inventories, interview analyses and even factual data that can be used to tell us whether we are getting anywhere or not.

If the question be raised that even though we are getting somewhere, by test, how do we know what the consequence is due to, we shall just have to say that in this particular group as compared with another matched group under different treatment, it looks for practical purposes as if a given set of conditions was producing the consequence, that is, analyses of variance may show significant differences in outcome among groups. In the field of sociology, Woodard has talked about "provability", "demonstrability" and "plausibility". Even though we may not be on the level of "provability" in guidance research, we surely can talk about a high degree of plausibility!

3. The third or procedural approach level might consist in setting up various kinds of procedures as well as operative conditions and strategies that will hopefully bring about the desired outcomes, these procedures being tested in various combinations to see which is the best in terms of economy, effectiveness and feasibility.

It seems to me that procedures might fall into the three main categories of: individual process, group process and program process. In the program process we might include information-giving, measurement, parent orientation, observational and exploratory experience, classroom contributions, work experience, as well as the individual and group processes that may be the core of the whole program process.

Involved in any field process to bring about designated outcomes will be a decision as to which overall strategy of procedure shall be undertaken -- the governing strategy comprising choice of main direction toward objectives and a decision as to the most effective and economical collection of means to be employed. The means-ends pattern called a strategy may, in itself, determine ultimate consequences that may be considerably different than the professed purposes. for example, an informational strategy of guidance of the traditional instructional kind will produce a set of different outcomes than a strategy which attempts individual and group forms of guidance education on a cumulative basis and this strategy in turn will produce different results than a strategy which seeks to classify and allocate individuals into different educational channels rather than to bother trying to educate them to select their own channels.

At any rate, combinations of procedure and related strategies will have to be tried out and compared in typical settings with modal personnel under the realities of field practice.

4. In a fourth stage which we may call the curricular we may attempt to define the conceptions, knowledges, skills and attitudes it would be necessary for professional practitioners to have and the associated learning experiences it would be necessary for them to undergo in order to conduct the procedures and create the essential conditions for attainment of outcome.

At this stage will recur the strong element of value judgment that characterized the first phase. There will be the contention that it is not so much guidance procedures per se which produce

favorable guidance outcomes among youth but rather mature and effective mentors (whether these be parents, teachers or counselors) who live through various planned and unplanned experiences with receptive and motivated children and pupils. Significant learnings occur in just this way and, of course, any program of guidance procedures is "no better than the people who run it". We need both good people and good procedures -- neither is much good without the other. Just as the cool surgeon needs to know how to use a knife with dexterity, the congenial teacher needs to know how to adapt learning procedures to the needs of his pupils, and the perceptive counselor needs to know how to employ special kinds of evaluative, interpretive, communicative and consultative procedures so that he will not attempt to undertake by personality alone that which can only be done by personality plus professional knowledge, concepts, attitudes and skills. Thus we need to pick good potential counselors, then to teach them effective procedures.

An important phase of the curricular approach will be research on selection. The kind of trainee we want to select, however, will depend on the type of guidance process to be conducted. For an educative form of guidance process, an entirely different type of counselor may be needed than for a classificational and allocative form of guidance process.

5. The formulations of the curricular part of our research will need to be tried out during what we may call a demonstrational stage when different types of program may be tested and compared. Ordinarily this would be an almost impossible thing to do in institutions of

higher learning but the availability of new national moneys might afford the opportunity to experiment, comparatively, with different program forms relatively free from the usual academic constraints and restraints. Inter-disciplinary approaches, supervised treatment of field problems, laboratory practicums, group work experimentation, and many other known and relatively unknown kinds of instruction might be attempted. We may thus have a chance even to try out some wild, divergent and original ideas in the way of counselor preparation that may yet serve to guarantee our survival.

6. In the sixth, the evaluational stage, we must attempt to assess the outcomes among counselees that result from the activities of the practitioners trained in the institutional programs. Thus, we return to the original purposes for which the whole business exists.

The six stages we have attempted to outline -- the analytic-conceptual, instrumental, procedural, curricular, demonstrational and evaluational -- will, of course, have to be conducted, if at all, in the form of nationally planned and coordinated experimentations in a number of different centers. At all stages, also, there will have to be conferences in order to attempt to reach professional consensual agreements at important points of analysis, conceptualization and decision. As previously noted, results of preceding studies in various sectors can be assembled and applied wherever indicated.

I should be the last to assert that national forms of more comprehensive research studies should or could replace hundreds of scattered studies throughout the country because it might well be that

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one of these studies could come up with a key finding which would start us off on a wholly new and fruitful tack. But with the kind of problems we are confronting in counselor preparation today, it would seem that there is a place for a more coordinated and broader program of research of the type I have tried to depict.

As a foundation for such study and research, it would seem to me that a basic requirement will be a more comprehensive psycho-social theory of counseling and guidance than we now have and than a clearer definition of purposes and outcomes to be sought in relation to fundamental individual and social needs for the educative process called guidance. We may then seek to test procedures in relation to outcomes desired and finally to base our field functions and our programs of preparation on purpose-procedural, or means-ends patterns thus developed.

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are doing in the field. In guidance there is a greater diversity, confusion, and even chaos than in any other phase of education at the national level. The real question is whether the purposes of the school in America as seen by local administrators is the same as indicated by national needs, or do local interpretations differ from real needs. Are local school cultures operating contrary to national demands? Social & connections at this time in this country affect educational objectives. Which of the various ideologies concerning education is the right one? We are now over the threshold of considering education from a parochial point of view.

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of guidance was made: that every pupil in a school
(1) "Guidance Policy and Practice", 1st edition, Harper & Bros., 1949; "Guidance Policy and Practice", 2nd edition, Harper & Bros., 1955; "A Strategy for American Education", Harper & Bros., 1957.

(2) personal-social relations in school, (3) educational-vocational orientation. These areas are interdependent, and the counselor is

SUMMARY

Discussion Following Mathewson Speech

Outcomes of guidance and counseling are in the changed behavior of the counselee. Can we ever arrive at agreement on outcomes through consensus, or are we in different worlds? There is always confusion between what counselors should do and what they are doing in the field. In guidance there is a greater diversity, confusion, and even chaos than in any other phase of education at the national level. The real question is whether the purposes of the school in America as seen by local administration is the same as indicated by national needs, or do local interpretations differ from real needs. Are local school cultures operating contrary to national demands? Social disconnections at this time in this country affect educational objectives. Which of the various ideologies concerning education is the right one? We are now over the threshold of considering education from a parochial point of view.

A crucial question is whether education can now embrace essential objectives of guidance. One specific illustration of desirable outcomes of guidance was made: that every pupil in school gain better understanding of and capability to deal with self-situational relationships in three areas: (a) academic progress, (b) personal-social relations in school, (c) educational-vocational orientation. These areas are interdependent, and the counselor is

the one person who looks at them in relation to individual development over a time dimension.

Outcomes of guidance may, in reality, be determined by the various discrepant images of the counselor's role held by different persons. No doubt the tensions concerning professional roles cannot be eliminated, but they can be studied by describing what these images are, what persons or groups hold each image. Among varying images were named that of the pupils, the school administrator, the lay public, the counselor himself, the teacher, the counselor educator, the professional organizations, and the possibly changing image of counselors-in-training. Some disagreement was expressed with an image analogous to the "general practitioner" in medicine. It is perhaps significant that the professional organizations are outside the N.E.A. Apparently these images include not only those which are "stereotypes" but also "ideals". A new field like counseling may have such divergent images because of lack of spokesmen. In the ultimate market place of human society, the existing image is relevant---the specialist must justify his claim to special knowledge. Beyond describing these various images, there is need for communication among persons and groups holding them. Even communication is not enough, there must be some action beyond; some research might seek ways to merge different sets of aspirations.

Most approaches to outcomes or objectives have been through seeking consensus of professional groups. With the variation in

minimum requirements for training among counselors, we cannot expect such agreement. Counselors must have special knowledge of human behavior and of the counseling process.

Definition of outcomes may be sought through research and must include consideration of: (1) what should be the outcomes, (2) what outcomes are attainable, and (3) what outcomes result under different conditions.

Desirable outcomes may be defined from the basis in psychosocial theory as proposed by Mathewson. Interdisciplinary research is required to attack such basic problems as motivation, and to apply the findings to motivation of high school students toward vocational choices. A taxonomy of objectives leads to the possibility of measurement of outcomes, and a better defined choice of those outcomes suitable to the overall purposes of education.

There are some indications that certain outcomes are attainable and that others are not. Studies of therapy with all kinds of therapists would indicate that we can't count on personality improvement. It is not very well supported by studies that counselees gain self-knowledge. It is not possible to guarantee the behavioral outcomes, but what we can do is work for changes in outlooks, understandings, and attitudes, because these have both internal and external valences.

Research on results under different conditions requires identification of the variables, the kinds of influences on the outcomes.

These variables might include differences in the institutional setting, the counselor's orientation, and the characteristics of the counselee as an individual. A model for research must include varying these conditions, as counseling occurs at different problem-moments in the life of the counselee.

The long-range nature of the outcomes in guidance poses certain difficulties. A taxonomy may be difficult because the desired behavior may not occur in the immediate future. Some long-range studies have been based on trait psychology without reference to situational variables, and on statistical prediction with expectation of too much specificity.

Even if there is no firm agreement as to outcomes, there is working knowledge which might permit the study of the contribution of guidance to the educational product at its best.

Research on counselor training programs is limited by certification requirements and similarity of programs. There is needed some experimentation with other types of programs such as psychology with extensive supervised practicum experience. Research people must become sophisticated enough to attack the problem of counselor education in the entire range of Mathewson's model. There is a possibility that more than one model is needed.

Perhaps rather than seeking to resolve these research problems on a national level, regional centers might be set up combining training and research where different situations are available for tryout of various phases. Much that is already known could form the basis for such a center.

Research Conference
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Research on Instruments Used by Counselors
in Vocational Guidance

Leona E. Tyler

1. Present Status and Research Needs

Vocational counselors are primarily interested in two kinds of measuring instruments -- tests of aptitudes and interests. The use of such tests became an established part of the technology of vocational guidance some 30 years ago. At the time I entered the psychological profession in the late 1930's there was much enthusiasm for these tests on the part of applied psychologists and the general public. Research on the instruments and the traits they were designed to measure was flourishing. It looked as though in a few years counselors might have at their disposal a fairly complete set of well-validated methods for assessing the traits required for success and satisfaction in at least the major varieties of occupations.

I would like to stress also the fact that clear, unambiguous evidence was presented during that period that tests increase the effectiveness of vocational guidance. Primarily it came from a series of studies in Great Britain, the largest of which, in Birmingham, involved 1600 young people who left school at 14 to go to work. (Hunt and Smith, 1945). All of these subjects were followed up after a two year interval, and 600 of them were followed up after a four year interval. Several criteria of occupational adjustment were used. The comparison of the experimental group in which voca-

tional tests were used with the control group in which they were not gave clear, unambiguous results. Outcomes were more favorable in the cases of those counseled with tests.

In spite of this initial enthusiasm and this clear evidence that the goal of the research effort was worthwhile, there seems to have been a considerable decline in basic and applied research in this field. One of the questions I have been asking myself for some time and that I have concentrated on especially while preparing this paper is: Why should this decline have occurred? I think I will not

use any of my limited time to argue that it has occurred. If you doubt it, compare any textbook on tests and measurements recently published with one of ten or fifteen years ago, and see how much you find in it that is really new and really applicable to vocational counseling tasks. A number of the reviewers of vocational tests for the last issue of the *Buros Yearbook* make the same point--that little progress had been made since the former edition in answering fundamental questions of interest to counselors.

Let us look first at the research on aptitude testing for evidence as to why the enthusiasm of counseling psychologists for research in this area has diminished. One landmark is the Ghiselli monograph published in 1955, The Measurement of Occupational Aptitude. This exhaustive survey of the literature brought out some disturbing facts: 1. that correlations between all varieties of aptitude tests and the criteria they might be expected to predict, on the average, are rather low; 2, that these correlations vary a great deal from study to study; and 3. that correlations with training criteria

are not related to correlations with proficiency criteria, for the same test. What these findings seem to mean for the counselor is that any given test predicts a criterion inaccurately if at all, that whether a person's score is significant or not depends upon the situation he gets into in the unpredictable future, and that even if a high score forecasts success in a training program it does not have anything to say about his success in the work to which training leads. A discouraging prospect, perhaps too discouraging. We shall return to it later.

The second kind of research that has contributed to the general decline of interest in aptitudes and aptitude testing is the development of batteries based on factor analysis. When this line of work was initiated by the Thurstones in the 1930's it seemed likely that with a small number of tests of relatively "pure" traits it would be possible to measure aptitude for a large number of specific occupations. For the practicing counselor (though perhaps not for the research psychologist or industrial psychologist) the results of this kind of research have also proved disappointing. For one thing, there seem to be many more primary abilities than we anticipated, so that the desired simplification of the structure with which we work is not going to occur. But, more importantly, these tests have not been generally effective in making differential predictions. In many instances the authors of these batteries placed them on the market for general use before they had any evidence with regard to predictive validity at all. In cases where such evidence was obtained,

as it was for the DAT, it turned out that most of the separate tests were to some extent related to all of the criteria, and that the same variation from place to place and from group to group that Ghiselli had shown occurred here also. The GATB is a possible exception. It is probably the most promising present instrument of this type. The reprint of the articles from the Personnel and Guidance Journal, brought out in 1957 under the title The Use of Multifactor Tests in Guidance is an excellent source of information about this family of tests.

One other reason for some disallusionment with regard to aptitude testing has been the long-range follow-up study of Air Force personnel reported by Thorndike and Hagen in their book 10,000 Careers. Their finding that there was little or no correlation between the aptitude measures and the criterion measures obtained years later has been well publicized. It is interesting that it agrees with the finding of the principal investigator's father more than 20 years earlier that aptitude tests given to high school students did not predict job criterion measures obtained after subjects left school.

Time does not permit the detailed criticism of all these kinds of research that can and has been made. What I have thought a good deal about is how we reconcile clearcut evidence that tests add to the effectiveness of vocational guidance with equally clearcut evidence that they don't predict anything. I think there are at least two possible kinds of answers, and that they point the way to kinds of research that would be fruitful.

For one thing, we may have been seduced by the correlational method into drawing unwarranted conclusions. Studies from the early Minnesota Employment Stabilization Research days to Thorndike and Hagen's recent effort indicate that occupational groups can be differentiated from one another on the basis of measured aptitudes even though degree of success within the occupation cannot be predicted. It may be that there are threshold effects producing this differentiation. We know with a fair degree of certainty, for example, that a boy with an IQ of 90 will not be admitted to a first-rate college, or that if he should through some improbable set of circumstances get in, he will not last long. Is it not conceivable that a similar kind of relationship holds for most of the special talents and aptitudes we have measured? A minimum amount of the trait in question may be essential if the person is to function at all in a situation with special demands. If he possesses that minimum, how successful he is may depend upon what else he has to go with it. In the days when investigators entered their figures on scatterplots and looked at these while they ground out the correlations, such differences between the predictive value of low, medium, and high scores would have become apparent. Feeding the figures into today's high speed computers will not show them up. Correlation has become too easy.

Another possible way of reconciling what appears to be discordant findings is to pay more attention to the actual decision processes involved in a person's utilization of his abilities. It may be that aptitudes are related to vocational outcomes only if they are known and the knowledge is used in the making of vocational decisions.

No counseling was involved in either of the Thornkike studies. The relationships in which we as guidance workers are really interested may be those between test scores and personal decisions, on the one hand, and decisions and outcomes, on the other. The middle term may be the essential one.

When we analyze what has gone on in vocational interest research, we find a picture that is different but perhaps equally unsatisfactory for guidance purposes. The research carried on with the Strong Vocational Interest Blank during the last decade by Strong himself, by the Minnesota group, Darley and Hagenah (1955), Layton (1958), and by McArthur (1954) has made it more and more evident that this test is an extremely useful tool for assessing aspects of a person's total motivational pattern that determines what kind of occupational situation he will find congenial. Persons who make choices in line with their Strong scores stay with the occupations chosen; persons who make choices that are out of line with their Strong scores tend as time passes to shift away from the first field chosen, and often to shift to something closer to the Strong picture. Furthermore, these interest patterns are remarkably stable over long time intervals.

In spite of all these things and many more that can be said in support of the Strong blank, it has not had a great deal of use in high school guidance. There are three very good reasons for this. First of all, the difficulty in scoring it makes its use impractical in many or most situations. Second, it is geared primarily to the occupations at the professional and managerial level and ordinarily

does not have much relevance for the non-college students. Third, the problem of interest change during the adolescent years has never been satisfactorily solved.

Research is in progress that will handle some of these difficulties, but it has not yet reached the stage where its results are immediately applicable. Clark at Minnesota has been working for years on an interest test that will differentiate occupational groups at the skilled trades level (1953). Kuder's new Preference Record: Occupational is designed on the same pattern as the Strong, with scoring keys made up of items that differentiate occupational groups. It is not difficult to score. However, the body of information about what actually happens to people who make different kinds and patterns of scores -- the kind of information that makes the Strong so valuable -- has not yet accumulated for this latest of the Kuder tests. The interest change problem has been attacked by several investigators, but no clear answer is in sight. During the high school years from 14 to 18, most students change their Strong patterns very little, but a minority show extreme shifts. One of my students and I discovered in working with our longitudinal data (Dunkleberger and Tyler, 1961) that what differences there are between the two groups on the California Psychological Inventory are in favor of the changers rather than those who are stable. Dunkleberger suggests that we do some thinking about interest development rather than interest stability. For testing purposes we would like to have everybody stay as he is over long periods of time, but if we are interested in the people rather than the reliability coefficients,

we may wish to encourage changes of interests in individual adolescents if we can.

The main standby for interest testing in the high school is the Kuder Preference Record: Vocational. Its strengths and weaknesses are probably well known to everyone here, so I shall not dwell on them. The comment made by Pierce-Jones in the last Mental Measurements Yearbook is one I should like to endorse. The trouble with the Kuder Vocational is that there has not been as much improvement in the background of information upon which interpretations must be based as I should like to see. Occupational norms are still based on inadequate numbers and samples. Follow-up data are scanty.

This is about where we stand so far as existing instruments for measuring interests are concerned. I have come to feel that more fundamental criticisms than those we have been considering can be made of the whole approach we have been using. For one thing, neither the Strong nor the Kuder gives the person much insight into the sources of his reactions to specific things. He might well say: "So I have a high score on the Persuasive scale. So what? What does this really mean?" This becomes a particularly troublesome thing when we are dealing with a student who gets a "flat" profile on the Strong or a Kuder profile with no outstandingly high or low scores. We conclude that he is not much like typical people in any of the occupational groups that have been studied. But how does that help Bill? He still must make choices, live his life the best way he can. We need techniques of identifying what kinds of things he wants and seeks, techniques that perhaps will show where different values conflict.

The other fundamental difficulty with existing instruments is that they tend to perpetuate the status quo. Scores and norms for physicians, for example, indicate how much a young person resembles the kind of physicians we now have rather than the kind we might like to see the medical schools turn out in the future. This is one of the reasons that we must be careful about taking any interest score too seriously. The person it disqualifies from a given occupation may be the innovator who could have helped change the shape of the occupation itself. It is probably a good thing for the future of society to have in every occupational group some persons who score C for it on the Strong.

For both aptitude and interest tests, we feel the lack of developmental data. There has been a notable shift in theories of vocational choice during the past decade. The idea of vocational development is fast replacing the idea of vocational choice made at one particular time. When we try to assess developmental level, however, in any areas except those of intelligence and achievement, we do not have the tools we need. As one goes through the section of the Buros Yearbook on Vocational Tests, one finds that with a few exceptions like the Minnesota Clerical, tests designed for adults do not furnish any information about what to expect of 9th, 10th, 11th, and 12th graders, whereas those designed for use in high school do not furnish any information about the performance of adults in various occupational groups. The recently published high school norms for the GATB should be of considerable value here. For example, when a ninth grader is trying to decide whether he should head toward

college or toward a technical school, we ought to be able to make a prediction about where he is likely to stand in comparison with other applicants for technical schools in the abilities required there as well as to predict whether or not he will qualify for college. I hope that eventually we will have solid evidence about the shape of the typical growth curve for each of the special aptitudes and varieties of interest that have been identified and evidence as to the age at which its development is complete.

There are some other general questions in this area, harder to answer but challenging in their implications. The roots or origins of many traits are probably in other traits not superficially similar to them at all. If we could unravel these relationships we would increase our effectiveness a great deal as "guiders" of development. An example I have recently run into in my own research will perhaps make this clear. I have been comparing a group of boys who in 12th grade showed clear patterns of science interests on the Strong with a group who clearly were not oriented toward science. I have a variety of measures obtained on these subjects at different age levels from 6 on. The tracing back procedure I have been using shows that science interests are in evidence in the great majority of the science group from the 8th grade or 14 year level on. At the last level before this for which I have data, the 4th grade or 10-year-old level, the two groups are not differentiated on science interests themselves but on masculine interests, the science group showing up as significantly more masculine. The M-F score differentiates in the same direction even among the 6-year-olds. Furthermore, all the personality measures

classify the science boys as less dominant and aggressive than the others. Can it be that a combination of clear perception of one's masculine role plus a temperamental distaste for aggression constitute a state of mind that facilitates the development of science interests? I have too few cases to answer such questions conclusively, but I at least can raise them.

A related area for research is in the effects of various kinds of education, home environment, and specific experiences on the growth of special kinds of interests and aptitudes. So far as I know, very little exploration has been carried on in this field. Studies could be set up using as independent variables conditions boys and girls are quite likely to be exposed to, such as shop courses, music lessons, or the trial-and-error efforts a boy makes to keep his \$50 Plymouth running. As things stand now we do not know how to allow for such experience in interpreting test scores or whether or not we can accelerate the growth of some ability related to a person's interests by arranging for him to obtain such experience.

Still another important research need, if we are to think in developmental terms, is for measures of general vocational maturity or readiness to make certain kinds of choices. Super and his associates have been doing interesting things at Columbia, but their findings have not been translated into techniques and instruments to be used by guidance workers in general.

Finally, in this survey of research that is needed, I should like to put in a word for more attention to the guidance of girls. Counselors would generally agree that all of our existing instruments

are more suitable for boys than for girls, and that helping girls make plans that will lead to satisfying and socially useful lives is in many ways more difficult than helping boys. Research workers have a tendency to bypass this problem by using only male subjects. It is time we took some steps to bring our knowledge of the vocational development of girls at least up to the level of what we know about boys.

2. New Approaches

Even though we are not at present in possession of the kinds of instruments that would be most useful in the vocational counseling of young people, we have reached the place where we can identify some promising directions in which to proceed as we attempt to construct such instruments. First of all, let me mention some things I think we do not need. Batteries based on factor analysis, standardized on high school students, with no evidence as to any kind of predictive validity are first on my proscribed list. The trouble with these, as I indicated before, is that counselors and teachers think they know what patterns of scores mean and those unwarranted inferences may be sending boys and girls off on all sorts of wild goose chases. Second on my list of things not needed are new aptitude tests tried out with adults in some underscribed criterion situation, in which the degree and kind of worker selection is not known, and for which the authors report validity coefficients of about .3. For selection purposes in the kind of situation for which they are specifically designed, such tests may have a contribution to make. For guidance I can't see that they have any value -- and as with the previous variety, they may be

actually harmful in that they may lead to unworkable decisions. A third kind of instrument not needed consists of new personality tests scored for traits supposedly not measured by those previously available, but with only face validity to their credit. Such a list of areas into which human energy and financial resources should not be directed could be a very long one. The reasons why we continue to try over and over what has not worked before might be an interesting study. But let us move on to what I think are some areas that are promising. Again I shall consider ability and interest tests separately because the technical problems are different.

I have mentioned already the extension of existing lines of research that seem important to me -- the accumulation of minimum scores that would facilitate decisions as to the probability that a given person can qualify at all for a given occupation; the study of the development of aptitudes and interests from childhood to maturity; the analysis of circumstances leading to interest change and an increase in a certain kind of aptitude. Let us look now at some ideas upon which new kinds of research structure may be built.

One such concept that seems to me to represent a possible breakthrough in aptitude research has been put forward recently by Ghiselli (1960). What he has been attempting with some success is the prediction of predictability. He has discovered that it is possible to devise an independent measure of how predictable each of the individuals in a group is with regard to a certain criterion measure. If members of the group are classified on the basis of this predictability index, the correlation between aptitude test and

criterion for the predictable sub-group is much higher than that customarily obtained. For the unpredictable sub-group it is in the neighborhood of zero. In the most recently reported study he has shown that when two tests are about equally correlated with a criterion, some members of a group may be predictable from the first, others from the second. Sorting them out on the basis of predictability measures and using the appropriate test in each case increases validity coefficients to a startling extent. A similar finding with the Strong test has been reported by Fredericsen (Fredericsen and Melville, 1954; Fredericsen and Gilbert, 1960).

So far these techniques make more of a contribution to selection than they do to guidance, since the predictability scores are specific to a particular test-criterion combination. But it would seem to be possible to develop more general methods of predictability for certain main kinds of criteria and tests. We would then have the basis for three kinds of answer to questions that arise in the course of vocational planning -- "Yes", "No", and "Cannot Say."

Another line of thinking that has seemed particularly important to me is motivated by increasing dissatisfaction with trait concepts in general. What I am most interested in right now in reformulating research directions has to do with non-correlational ways of describing what tests will do. I have been organizing my thinking around the principle that at each stage of his development a person is confronted with the necessity of making choices within limits. Some of the limits are set by heredity, some by what and how much has been learned at previous developmental stages, some by the attitudes and concepts

the person has about himself and the possible roles he might play. The counselor's job is to facilitate these choices upon which the course of the client's future development depends. He can do this in one or more of several possible ways, and these will vary from case to case. What some clients need is help with the limit setting. They are not sure what the limiting factors are, or they face a situation in which there really are not enough limits. Too many things are possible. This is the difficulty, for example, with some unusually bright students from families affluent enough to give them any kind and amount of education they wish.

What other clients need is help with the location and formulation of promising alternative courses of action. They know only in a vague, unstructured way what they want and cannot really make choices until the lines of the pattern become sharper.

What still other clients need is help with specific plans for the carrying out of choices they have made. All kinds of educational, avocational, and social situations in which learning may occur can be considered here.

What still other clients need is help in expanding the area within limits that are too constrictive. Many rehabilitation clients are in this position. So many things are ruled out by the addition of the disability to all the limiting factors in existence before that the person has no promising alternative to choose. This may involve the revision of constricting attitudes or the learning of skills the person might have acquired during a previous developmental state but did not.

This conceptual scheme has served to clarify for me what I am trying to do as a counselor. I have found it more workable than classifications based on particular varieties of problem -- vocational, social-emotional, and the like. It has made me aware of a need for some instruments about which a different kind of information is made available. The major usefulness of aptitude tests in this scheme, as I see it, is to help a person find out what his limits are. For this we would need the kind of information I referred to earlier--cutting scores rather than correlations. We would approach this measurement problem more as an identification of thresholds than as a delineation of traits. The question is: Does Henry have enough academic aptitude to understand what is being presented in the classrooms at Philosoph University? If he has, the degree of success he achieves may well depend primarily on other qualities besides academic aptitude -- motivation, study habits, perseverance. If he hasn't, however, none of these valuable traits can do him any good in this particular situation. Or, to cite another example, the question may be: Does Lucille have a good enough sense of pitch so that she can ever hope to play the violin at all? If so, how fine a performer she becomes will depend on how hard she works, how good she is at discriminating musical patterns accurately, and many other factors. Academic aptitude in the one case, pitch discrimination in the other, are minimum essentials necessary but not sufficient characteristics.

It might not be an impossibly large undertaking to pull together a lot of evidence already in existence with regard to the tests

we now have on the basis of which cutting scores might be set for counseling purposes. It seems to me that all the evidence we have is compatible with the sort of system of thinking I have sketched. As indicated in the previous section, the Thorndike and Hagen study, while it did not produce significant correlations between tests and criteria, did clearly indicate that occupational groups are separated from one another on the basis of test scores. To me the most reasonable explanation for this is that people who attempt clerical jobs, for example, with less than the necessary minimum of clerical aptitude soon quit or are fired from these jobs and try something else. A rough sorting out on the basis of aptitudes may be regularly occurring during the first few years young people spend on the labor market.

I realize that I have made this proposal for threshold measurement sound more exact than it is. The whole thing will have to be done on the basis of probabilities or relative frequencies, as it has been for college aptitude. I am not proposing this as an altogether new idea either. Personnel psychologists have been using cutting scores and expectancy tables for years. The GATB test is designed to pick up combinations of scores that are above established minima rather than to predict the degree of success a person will achieve. All I am recommending is that we begin to use these ideas more consistently in counseling -- to ask the question: Is this alternative possible for this person? rather than the question: How good is he at this kind of work? -- and that we collect research data that will give us fairly precise answers to the first sort of question.

The kind of research Tieddman and his associates at Harvard are doing, using discriminant analysis to predict whether individuals are in one group or another, is important in this connection. I have great hopes that Project TALENT will produce some information of this kind before too long. And I should like to see us intensify our efforts to make the GATB a maximally useful instrument. It is more inclusive than most aptitude batteries and it is designed to make this kind of analysis possible.

We turn now to interest testing. I have done a lot more work myself in this area than in aptitude testing, but somehow I find that I have less to say. Perhaps Shakespeare's observation about it being easier to tell twenty what it were good to do applies here. But I see at least a dim light in several directions.

For one thing I am convinced as I have been for a long time that we need more developmental data on interests. I hope to have a publication on my own developmental study ready this year, although its inadequacies are by now very apparent to me. The kind of pattern I think I see in the data, however, is of some interest. What I would now hypothesize is that during early and middle childhood differential interest patterns are not very important. Children like all sorts of things -- go off in many directions, simultaneously or successively. Sometime between the ages of ten and fourteen, consistent interest patterns begin to take shape. From then on they tend to perpetuate themselves although changes of some kinds in some individuals are not uncommon.

One of the insights that has occurred as I mentioned before, is that interest development and interest change are really names for the same process. But generally speaking we tend to think of development as a desirable thing and change or instability as an undesirable thing. As has been recommended for aptitudes, we need to study both the general developmental process and the effects certain particular situations and experiences have on it.

Another problem that I have struggled with for a long time is the analysis of the complex combination of motives we are now lumping together and calling vocational interests. There has been a good deal of discussion as to what interest tests measure, but much of it has been based on the assumption that a score reflects one kind of psychological variable. I have become convinced that this assumption is unsound. Furthermore, what one person means when he says "I like landscape gardening" may not be the same as what the next person means. It is these individual motives that are important for counselors and we cannot get at them by simply looking at interest scores.

I have been trying out a sorting and labeling technique with interest items. The subject is first asked to classify them into those he does not see as possibilities for him and those that he sees as possible choices. The conceptual framework outlined earlier is involved here. The first step is to identify the limits within which his choices operate. The second step is to ask him to break up both the positive and the negative sets into sub-sets of items that go together in his mind. When he has finished this task, I ask him to tell me what each subgroup represents.

This procedure gives me a large amount of complex data about individual motivations for each person. The difficulty in working with it has been to bring some kind of order into it -- to find how reliable and how valid the obtained picture of the individual is. The amount and kinds of variability from person to person are almost unbelievable when one remembers that all these qualitative differences are based on the Like-Dislike differentiation a subject makes in filling out an interest inventory. Several separate studies are in progress and should be ready to report within a year or two.

This kind of research and the developmental study have led me to believe that one main line of differentiation may be between simple affective reactions and values.

A person may say "I like chemistry" simply because he has taken it in high school and enjoyed the activities in the laboratory or he may say "I like chemistry" because he seeks the combination of high status in the community and service to humanity that a career in medicine represents, and he knows that courses in chemistry are essential parts of the education that leads to this goal. We cannot tell by looking at his L response which he means. The sorting procedure I have been trying is one way of getting at such differences. There may be better ways.

I may have tried to include too many ideas in this one presentation, so that none of them have come through with any clarity. If so, I hope our subsequent discussion can help to fill in gaps and correct inaccuracies. I am tremendously enthusiastic about what we

are trying to do here and I appreciate more than I can say the privilege of participating in these discussions and presenting for consideration ideas that seem important to me.

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SUMMARY

Discussion Following Tyler Speech

It appears that many counselors believe that the degree of vocational or educational success experienced by individuals is directly related to the amount of certain aptitudes or traits he possesses---that a linear relationship exists between aptitude and success.

In view of our present knowledge of individual differences and the changing cultural scene it is suggested by some that a primary concern of counselors is to determine the minimum level of the trait(s) one must possess in order to be successful in a given occupation. Beyond the determination of minimum level (or floor) of aptitude, it is proposed that we must conduct investigations to discover the extent to which associated factors and situational variables prove to be determinants of individual success.

In the matter of using tests and similar instruments for predicting success in educational and vocational pursuits, there was not complete agreement. One opinion that continued to receive considerable emphasis was the use of tests in making predictions. Many seemed to feel that prediction is an ingrained part of education and therefore counselors might reasonably be expected to predict educational and vocational outcomes for individuals. On the other hand, it was proposed that the passing out

of information to an individual is different from prediction. Providing information which the individual may integrate into his own decision-making process is not the same as prediction.

In education in order to think, understand, and act, we are continually opening new doors. Sometimes the effect of prediction is to close the doors and stultify education. At least two concerns about counselors engaging in predictive ventures were:

(1) There is danger of setting up artificial limits (we can't be sure in prediction). Let the administrators and college admissions people do the predicting! (2) Predicting gets us in the habit of becoming experts in a certain point and gets clients into the habit of coming to us as experts on certain points where we are not able to function as experts.

It is obvious that any counselor must add his own knowledge of probability to all data and this becomes an extremely tedious operation. When one engages in prediction he generally has to assume that people and situations remain the same. It does not appear proper for counselors dealing with individuals who have infinite opportunities or chances to rely on prediction. Since criteria in our field are so unstable and social situations so volatile it is extremely difficult to predict what one will be doing a few years hence.

Another area of concern was problems involved in counseling with women. The attitudes held in our culture regarding the role

of women affect the counseling process with them. It was proposed that the way attitudes and interests develop among girls and the professional development of women is quite different from men. Consequently, we could explore with profit how these differences come about and what their nature seems to be. We probably need to explore ways of setting up services that will take care of the needs of people at times when they face decisions. The implication here is that services to women must extend considerably beyond the confines of the school.

As the group explored other ideas stemming from this paper, it appeared that one problem is precipitated by the fact that counselors often think in terms of a static role for themselves. As the function of the school counselor changes, we probably need to be concerned about many things, three of which are: (1) how do counselors determine the very basic things that people can use to adapt themselves to change; (2) since a real danger exists of counselors being conformists and fostering conformity, can they be helped to break through the limitations of conformity; (3) children pass through developmental stages and in the process acquire a style of life. Then, almost as if by chance, they come to choose a subject field. It would be useful if we could classify the developmental characteristics and construct instruments that help counselors determine the kinds of stages youngsters pass through. The need for measuring interest was explored at some length. One real problem that was emphasized repeatedly was the need to

describe what interests really are. Very little effort has been made to extend or consolidate research in this important area. It is likely that we know considerably more than we have pulled together. This within itself could prove a fruitful area of research endeavor. An additional concern in this broad area had to do with relating children's interests to their concept of self. It is apparent that most of our research in the area of interest, description, and measurement, as well as other areas, will not be done by counselors. Many other disciplines must be involved.

It was interesting to consider the counselor's role in research. Is the counselor the one who gives ideas for and about research or does this come largely from measurement people? Could it be that counselors are "nurturers" by the very nature of their job and might not be the type generally to move into individual research projects. Then would it be possible to explore the possibility of counselors working on research in small groups? It seems likely that any major research undertakings will have to be financed through larger research contributions from foundations and similar groups. A rather important consideration was to the effect that we now need to move from research projects to research programs.

It was hard to see how the public schools might engage in very extensive research. This stems from a number of reasons among which are views held by boards of education, the lack of research skills and competencies on the part of many of the people involved.

It was not completely agreed upon by the group that counselors need to be trained researchers. Those who engage in research might require training as a special group.

What appeared to be one very important consideration was the idea of developing counseling centers over the country which could interlock research and teaching into a powerful continuing program. Certainly in these centers one important consideration would be determining ways of providing motivation and means to use what research has found.

Unfortunately, connotations of the word "research" have been such that we create images in the eyes of counselors that prove discouraging to them. Since research can be conducted at many levels, it would not be proper to exclude counselors from this important function.

In the paragraph above, the authors, Rothney, Danielson, and Weinmann, express a very pessimistic view regarding the future of instruments for use by counselors. Although it is clear that measurement for guidance is still in a primitive stage, it is believed that recent developments offer substantial promise. There seems much reason to believe that the counselors of 1970 will have relatively adequate instruments for use in the individual guidance of students.

Why has the development of adequate instruments and procedures for educational counseling so clearly outlined in Truman Lee Kelley's doctoral dissertation carried out under the auspices of Howard E.

*Prepared from draft of paper, not proofed by author.

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Research Conference
University of Georgia
January 25-27, 1961

RESEARCH ON INSTRUMENTS USED BY
COUNSELORS IN SOCIO-EDUCATIONAL GUIDANCE*

John C. Flanagan
American Institute for Research
and University of Pittsburgh

"The measurement in guidance movement that began with such high promise has failed to meet the expectations that had been raised by its auspicious start. When counselors seek tests that meet the standards that measurement experts have themselves called essential, the quest is generally unrewarding. Currently they can get only approximations of what they need. Although they may hope to get better instruments in the future, it does not appear that they will get them soon."¹

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¹ Rothney, J. W. M., Danielson, P. G., & Heimann, R. Q.
Measurement for Guidance, New York: Harper & Bros., 1959.

Thorndike at Teachers College, Columbia University in 1914 taken so long? Clark L. Hull sketched an automatic machine to be used in a comprehensive program of vocational guidance with a battery of thirty or forty different tests in 1923.

There appear to be many reasons why the development of adequate instruments for counseling has required half a century. The direct reason, if not the basic reason, is that during most of this period no one provided support for developing instruments and validating them. In the services during World War II excellent instruments for selection and classification of military specialties were developed and demonstrated to have substantial validity. Until very recently it had not been possible to obtain support for the same type of research and development project for other occupations.

Similarly there has been little support for experimental evaluations of counseling and guidance procedures. One of the few studies of this type which has been reported is that carried on by Rothney and Roens in Arlington, Massachusetts. Their report compares about a hundred experimental students who were given a special counseling program with a hundred control students in the same high school.

For drop outs, subject failures, and grade failures no differences were found. With respect to curriculum changes and graduation standing, significant changes were observed. There were a significantly larger number admitted to college prior to graduation in the experimental counseling groups. With respect to Educational and Occupational Planning Criteria there were a significantly greater

proportion of the guided students than the unguided students who knew the occupation or school they would enter immediately after graduation.

In analyzing employment criteria it was found that significantly more of the guided group who did not go on to college were employed full time. Also, the guided group believed they had chosen the right school or the right job. Finally, more of the guided students belonged to clubs and organizations than the unguided students.

A basic point needing emphasis with respect to guidance instruments is the relative importance, from a counseling point of view, of the aptitude classification concept as compared with the concept of general intelligence. To take an extreme example, suppose that two kinds of jobs, office clerk and auto mechanic, are to be filled from a common pool of applicants. Let us also suppose that only applicants in the highest 25 percent are regarded as qualified. If our only available measure was the score on a general intelligence test, we would have only 25 persons in each 100 applicants available for assignment to either type of work. Thus, if we put the 25 highest in 100 at work as office clerks, there would be none left over in the top 25 percent to put to work as auto mechanics. We could, of course, put 13 at one job and 12 at the other out of the top 25 percent.

Now, let us suppose we have given a battery of aptitude classification tests containing a group of clerical aptitude tests and a group of mechanical aptitude tests, and have rankings in order of scores on clerical aptitude and on mechanical aptitude. In this case because of the relatively low correlation between these aptitudes,

the list of those applicants in the top 25 percent for office clerk will be quite different from those in the top 25 percent for auto mechanic. In fact, only ten of those in the top 25 percent for office clerk will also be found in the top 25 percent of those applicants having the highest aptitude for auto mechanic. By using the more appropriate aptitude classification method, we are able to place forty persons out of 100 in one of these two types of jobs and have each of the forty placed in the job for which his aptitude is in the highest 25 percent for that job based on this common pool of applicants.

Thus, instead of 25 qualified applicants we now have forty qualified applicants taken from this common pool. By placing each in the job for which his aptitude was highest, twenty could be placed in each job.

It should also be emphasized that since each of the two patterns of aptitudes on which the aptitude classification was based is more relevant to success on the job than is a general intelligence measure, the quality of performance which can be expected on the two jobs will be higher for each group of twenty than for the smaller groups of twelve and thirteen selected on the basis of general intelligence tests alone.

Thus, we have not only increased the manpower pool by 60 percent, but have also improved the quality of the performance anticipated on the basis of the suitability of the personnel selected for each job.

It is important to note that even if the pattern of aptitudes

required for positions such as scientists and engineers are relatively similar, so that because of common elements in the two sets of requirements, the correlation between the combination of aptitudes and that for engineer is .80 in terms of a product moment correlation coefficient, there will be eight persons in the top quarter on one list who are not in the top quarter on the other list. Thus, if scientists and engineers are selected on specific aptitude requirements and not on a general scholastic aptitude test, the pool available for the two types of careers will be increased by thirty-two percent.

Without detailed discussion of the very slow progress in developing satisfactory instruments and the basic reasons for this situation, the present stage in the development of various types of instruments will be reviewed. For purposes of this presentation instruments used by counselors will be classified into five main categories: (1) aptitude tests; (2) achievement tests (including special purpose tests of information); (3) biographical data blanks; (4) interest inventories; and (5) personality inventories.

Aptitude tests represent an effort to assess the potential ability of an individual to perform various specific types of tasks. The Aircrew Classification Tests developed to classify aviation cadets into pilot, bombardier, and navigator training in the USAAF during World War II represent a good example of specific aptitude tests. The series of articles edited by Super in the Personnel and Guidance Journal a couple of years ago presents descriptions of a number of currently available multi-factor test batteries. For the present

discussion the aptitude tests selected for inclusion in Project Talent will be used to illustrate specific points. These aptitude tests can be grouped under the headings of language aptitudes, complex intellectual aptitudes, mathematical aptitudes, and perceptual or clerical aptitudes. A number of the language lists have been shown to have specific predictive value for learning a foreign language. One of the measures has been found to be predictive of ability to learn shorthand. As a group these measures tend to depend to a great extent on formal training in reading and writing the English language.

Perhaps better examples of the dependence of the tests classified as aptitude tests on cultural and educational influences is provided by the tests in the second group. The mechanical reasoning test is not usually thought of as based on school learning. However, in undertaking to develop a suitable aptitude test battery for the underdeveloped countries, it was one of the first discarded as depending on content and objects with which the students in the lesser developed countries were quite unfamiliar. It was then thought that perhaps a test of visualization in three dimensions could be an adequate substitute since correlational studies in this country had shown these to be related. Preliminary trials revealed that the Nigerian students were quite incapable of perceiving a shaded drawing as a solid object. After much trial and error, a new test was developed using the same principle but having solid objects displayed by the examiner from which the student made his choice in terms of the printed test figures.

One of the interesting findings was that the students in these

lesser developed countries did quite well on the tests once they were modified so that the task was within their range of experience. The instructions ordinarily had to be much longer and more use of large visual displays seemed required. Preliminary studies also indicated that the expected tests when modified discriminated between better and poorer workers and trainees as indentified by their supervisors and teachers.

It seems clear that careful studies of this type should be very helpful in improving the interpretation and understanding of results from aptitude tests used in this country.

The Creativity Test in this group represents an effort to measure this illusive quality. This test is patterned closely on the Ingenuity Test of the F A C T battery. A number of studies have shown that in those items in which a real practical problem is presented and the student directed toward the general area of solution he must think of the kernel of the ingenious solution and is given closure by finding the first and last letters of the key words in a list.

This test provides an illustration of the more sophisticated type of statistical analysis readily available now through electronic computers. This test as well as all other candidates for inclusion in the F A C T and the Project Talent batteries was studied in terms of the extent to which it measured an element which was not represented in the other tests of the battery. For example, with the 19 test F A C T battery, the multiple correlation of this test with the other 18 tests was computed. This determination of uniqueness can be done in only a few minutes.

Although this test has substantial correlations with both language and reasoning tests, it also is measuring a unique element not included in a combination of all of the other tests.

The clerical and perceptual tests in the Project Talent battery have substantial uniqueness with respect to the other tests in the battery.

There is ample evidence available at the present time that some differential prediction is possible for various occupations even with the unsatisfactory criteria now available. Persons evaluating instruments must learn to interpret the low validity coefficients obtained in terms of the unreliability and sometimes irrelevance of the criterion used. An example of excellent prediction is provided by a correlation coefficient of .22 obtained between six months' accumulated ratings of effectiveness as a first officer or copilot on an airliner and the predictive battery. The group was sufficiently large that this was clearly statistically significant. But of what practical importance. Fortunately in this case it was possible to determine that the agreement of the ratings for this 6 months' rating period with the previous rating period was .20. Thus, the tests predicted these ratings better than did the ratings from the previous period. If .20 is used as an estimate of the reliability coefficient for these ratings, it follows that the best estimate of the correlation coefficient between this battery and an indefinitely large number of similar ratings (true ability of the type being measured) is nearly .50. Since there are spurious factors tending to produce

agreement between the two sets of ratings such as reputation, this is probably an underestimate of the true relation.

Perhaps a word should be said about the Thorndike and Hagen study of 10,000 careers. In this study the criterion wasn't even as good as supervisor's ratings. They had self report on earnings for a very heterogeneous age group who were rather homogeneous in aptitudes---all having been in the upper half of applicants for aviation cadet training. Self selectors also made the applicants themselves superior since they were applying for training to become officers in a specialty which was known to have a high elimination rate.

This discussion also leads to the conclusion that there is much more promise to be found in the occupational group type of analysis. This can be done by using Strong's type of comparison based on a multiple regression equation to predict the combination of scores or characteristics which differentiate those in the occupation from those in all other occupations.

The Project Talent follow-ups, which are anticipated to continue over the next 70 years, should provide ample opportunity to evaluate fairly representative types of aptitude tests.

Achievement tests are clearly relevant for socio-educational counseling. They are also widely used in vocational counseling. As indicated in discussing aptitude tests they are differentiated from those tests almost entirely in terms of the name given the battery by the author and publisher. It is quite clear that to some extent performance on all so-called aptitude tests is a function of cultural

and educational experiences. However, some tests include materials which are directly taught in clearly identifiable school courses and these are most usually called achievement tests.

It is likely that achievement tests have substantially more promise as differential predictors than has been exploited to date. For example, studies have shown that teachers are unaware of student patterns of ability in such courses as mathematics and English . The grade they assign is an average which conceals these patterns. Well constructed achievement tests can discriminate between the various aspects of the students achievement in mathematics, such as his ability with respect to manipulative skills in algebra, his knowledge of terms and concepts, his ability to solve problems presented in verbal form, and his appreciation of the nature of mathematical symbolic notation and procedures.

A special type of achievement test is the Information test as used in Project Talent. This test contains several hundred items of information. Some of these are taught in school and some are acquired at home or by personal reading. An example of a type of item typically learned out-of-school are those included in the score for aeronautics and space. There are other items on health, hunting, sports, games, and other types of activities. It is believed that scores on such items will indicate to some extent the functioning interests of the individual in terms of a choice of reading material and activities.

Even within the types of information taught in school these items

may differentiate between students who merely prepare their assignments and those who develop a real interest in the subject. For example, there is some evidence from the preliminary data that girls obtain scores as high as those of the boys on a ninth grade mathematics test but these same ninth grade girls obtain somewhat lower scores than the boys on the Mathematics Information Test. The follow-ups on Project Talent should indicate fairly soon the extent to which information scores can assist counselors and students in their study of interest patterns.

A related approach to interests and other relevant personal and background characteristics is the biographical data blank. In Project Talent we have included about 400 questions about family, activities, habits, health, and plans. In the military services the only scores which have added substantially to the predictions from aptitude and achievement tests are those obtained from biographical data blanks and special information tests.

An interest inventory was included in Project Talent. This is of a very simple and straightforward type. The student is asked his interest in entering each of a list of more than a hundred occupations. He is also asked to indicate the extent of his interest in participating in each of a number of activities. Tentatively it is planned to group these items so as to obtain about 15 scores. The item responses themselves are also retained in the students' record on magnetic tape. It is believed that this set of items contains nearly all the useful variance in currently available interest inventories. Some tentative

data are available regarding this based on studies of the experimental form.

In the Project Talent battery a personality inventory containing about 150 self-descriptive items was included. Ten scores were obtained from these items. The items are of a simple type asking the student to indicate by checking one of five choices how well a statement describes the role he usually plays or the manner in which he performs. Typical items are: "I usually take the lead in a small group" and "I always meet my commitments". The ten scales were selected from an original set of 18 on the basis of an analysis of the intercorrelations. Each item is intended to be readily classified by an educated adult into the one of the ten categories in which it is included.

MARTHA

Martha and her nine brothers and sisters live on an isolated farm. Her father owns and operates the farm full time with the help of her mother and the children. Her father was born on this farm, and her mother was born nearby. They have lived in the area all their lives. No foreign languages are spoken in the home. There are about a half dozen books and a single farm magazine in the home, and there is little time for reading. She works 20 hours a week at her chores, helping her mother cook for twelve people.

Martha is 16 and in the eleventh grade in a commercial curriculum. She rides a bus 10 miles to school every day. She belongs to only one club, a farm youth group, and rarely attends its meetings.

She has no dates and has never learned to dance. She expects to marry at age 20 and have two children some day.

She indicates that she would be very much interested in being an elementary school teacher, high school teacher, nurse, secretary, typist, beautician, decorator, or religious worker.

She has one semester course in science, none in foreign languages, six in social studies, four in English, two in business, and six in mathematics. She reports that her grades have been A's in mathematics and commercial subjects, mostly A's in science and English, and mostly A's and B's in social studies.

She studies seven hours per week and says going to high school is lots of fun. Her hobbies are few. However, she does a great deal of sewing and cooking and sometimes engages in sports, gardening, and swimming.

Martha says she will definitely finish high school but is not likely to go to a four-year college. However, she said she would be willing to borrow money to do so. She wants to take a secretarial course after high school and become a secretary.

The pattern of Martha's test scores is a very interesting one. Of the five tests recommended for the secretarial occupational area she is relatively low on two but quite high on the other three. Her score on the Vocabulary Information Test exceeded only 11 per cent of those of eleventh graders, and her score on the Reading Comprehension Test only those of 33 per cent of this group. However, her score on the English Total Test exceeded those of 85 per cent of eleventh

graders, on the Clerical Checking Test 88 per cent of them, and on the Disguised Words Test 87 per cent of this group. Considering all her scores and her school record, she can be considered qualified for her vocational choice of secretary.

She has other relatively high scores. Her score exceeded those of 73 per cent of eleventh grade girls on the Home Economics Information Test. Her score exceeded those of 83 per cent of eleventh graders on the Memory for Sentences Test, 89 per cent on the Memory for Words Test, 84 per cent on the Mathematics Part II (Introductory) Test, and 91 per cent on the Table Reading Test.

However, she tends to be rather low on a number of the Information sub-tests and several other tests involving reading and reasoning. Her teachers may wish to encourage Martha to read more to build up her vocabulary. She probably would benefit from special instruction aimed at helping her to understand better what she reads. Her specific developed talents in tests indicating aptitude for English expression, shorthand, and clerical checking, and her ability to memorize material could probably best be utilized if her performance in these related areas were improved.

In regard to college, her test scores and good school record indicate the possibility of profiting from some form of college instruction. Her own plan of taking a secretarial course after graduation from high school would also make available to a prospective employer a potentially high quality secretary.

ROBERT

Robert is now 16 years old and a junior in high school. Since he was 9 years old, he has gotten up at 5 o'clock every morning to deliver papers. With this and other odd jobs he works about 16 to 20 hours per week and earns all his spending money. When he gets home after school, he puts in about 10 hours a week on chores helping his mother and father and three brothers and sisters. His athletics take up 12 hours a week. He also spends part of his spare time building and repairing electrical and electronic apparatus. His father is a skilled worker and his mother works as a clerk. They are both native-born. His father completed one year of college. His mother had some grade school only. They speak no foreign languages.

Bobby is a member of the football team and is captain of the basketball team. He says he likes very much to hunt, swim, explore, and drill with a military group. He does not like to read very much except for science fiction and non-fiction.

He has had four semester courses in science, two in a foreign language, six in social studies, six in English, and six in mathematics. He reports that his grades in mathematics have been mostly C's and D's while his grades in other subjects have been mostly B's and C's. He studies (in addition to his 26 to 30 hours of work and 12 hours of athletics) from one to four hours per week. His studies appear to be crowded out by other activities and interests.

Bobby indicates that he would be very much interested in being an astronomer, research scientist, technician, electronics technician,

spaceman, laboratory technician, draftsman, electrical engineer, Marine Corps officer, Air Force officer, or designer.

He says that he would like to work in a large government rocket proving ground because he likes working with electricity and electronics and would like to work in a field closely linked with scientific research. He says he thinks working for the government in one of these installations would be good-paying year-round work.

Bobby indicates that he may not go to college although he would like to. He would be willing to borrow money to do so. If he is able to go to college, he would expect to major in physical science. His expressed interest in working at a rocket proving ground is reflected in his perfect score on the Aeronautics and Space Information Test. A comparison of his test scores with those of other eleventh graders shows that his scores exceeded those of 97 per cent for the Physical Sciences Information Test, 90 per cent on the Mathematics Information Test and 92 per cent of the boys on the Mechanical Information Test. On the Information Test Total his score exceeded those of 95 per cent of high school juniors. His score exceeded those of 94 per cent in the Reading Comprehension, 93 per cent in the Creativity, and 92 per cent in the Visualization in Two Dimensions Tests. These scores indicate that he has considerable aptitude in the general field of physical sciences. However, his Mathematics I + II score only exceeded those of 83 per cent of high school juniors. This suggests that he might have some difficulty with mathematics courses in a university with high scholastic standards.

His score only exceeded those of 45 per cent for the English Total test. This indicates a relative deficiency in this area. His test and school records indicate he will have to study more if he is to succeed in college. However, since he still has a semester of high school left, it might be possible for him to change his work schedule and his approach to his studies and bring up his grades, although it is now quite late to have much effect on his high school record. Good counseling in earlier years might have encouraged a better work and study schedule. His scores on the parts and total of the Information Test indicate substantial learning in technical fields out of school as well as in school subjects. On the other hand, his development of the basic skills in mathematics and English expression have not kept pace with his gains in technical knowledge.

His expressed goal to work as a scientific technician at a rocket proving ground is very much in line with his indicated talents and interests. However, the school staff is presented with a real challenge to help him realize his plans. Robert's parents and the school staff may wish to make a special effort to assist him in improving his grasp of the fundamental skills he will need if he is to benefit fully from college training. The school staff after studying his background and performance will face difficulties in getting him admitted to the type of college which will enable him to develop his potentially strong talents in the field of space technology.

In the field of personal and social development an instrument has been developed which should be useful to counselors at the

elementary school level. This is an observational form on which the teacher is asked to record the date the specific letter corresponding to the child's action and two or three words to identify the specific incident. The four areas of personal behavior include Personal Adjustment, Responsibility and Effort, Creativity and Initiative, and Integrity. The areas of social behaviors include Social Adjustment, Sensitivity to Others, Group Orientation, and Adaptability to Rules and Conventions.

Incidents are recorded if they are sufficiently important for the child's behavior development so that if desirable they should be given special encouragement or if undesirable should be corrected to improve the behavior. For example, if Bobby did something original like making up a poem to celebrate the Thanksgiving Holidays on his own initiative. This would be recorded under the third personal behavior area, Creativity and Initiative. After the date the letter A would be entered to designate the specific item, "Made up poem, song, or carried out some original or creative project" and the words Thanksgiving Poem would be written. Or if Jane laughed loudly when Susie, a shy new pupil, mispronounced a word, this would be recorded as a Behavior Needing Improvement under the behavior area, Sensitivity to Others. After the date the letter D would be entered to indicate that the behavior was "laughed at the mistakes of others" and the two words "Susie's mispronunciation" would be written in.

With help from a counselor, teachers could use the ideas in the manual on developing the personal and social aspects of the child's

behavior. The manual includes such discussions as "What is Sensitivity to Others", "What Influences Sensitivity to Others", and "How to Encourage and Improve Sensitivity to Others".

Perhaps the most important aspects of methodology are (1) long range follow-ups, (2) empirical probability data, (3) increased interchangeability and comparability of data from various programs and instrument, and (4) adjusting scores statistically for family background, community school, activity, and related factors.

The long range follow-up studies being carried out in connection with Project Talent should provide experience in this area of great value for designing subsequent studies. With respect to the development of empirical probability data, it is proposed that the model developed by Dr. Paul Hosst at the University of Washington to be followed.

This model should be extended to include non-university types of training and job performance. It would be necessary to modify this model so that instead of predicting the grade the student would make in a specific college course such as sociology, a prediction would be made as to the probability of the individual's obtaining a promotion during his first three years on the job. Also, the new computers and the data from Project Talent should make it possible to use many more predictors and possibly patterns of predictors in relation to each other. Increased interchangeability and comparability of data are essential to avoid excessive duplication of data collection. A start on this is being made in connection with Project

Talent. For the other proposed methodological improvement the suggested model is the work of Dr. Ben Bloom at the University of Chicago in improving predictions of college success based on high school grades. It is believed with the extensive school and guidance program data and the detailed student background data, that the empirical basis of these adjustments can be rationally determined and generalized for use with all students in all schools if adequate descriptive information is available regarding them.

In conclusion, the counselors of the not too distant future should have much more useful instruments available than in the past. The usefulness of these instruments can also be expected to be greatly increased by assistance from new data processing equipment. Freed from some of the mechanics, counselors can focus on their primary functions to assist students to develop appropriate plans and goals to guide their development and future activities.

SUMMARY

Discussion Following Flanagan Speech

A basic question concerns the relative usefulness in counseling and guidance of tests of differential aptitudes recorded in a profile and of general aptitude recorded as a single score. The single score intelligence test is a hodge-podge of items representing many factors, and its meaning seems unclear; the profile, on the other hand, may only appear to have more precise meaning and the inferences made by counselors may go beyond the evidence and distort the planning of the counselee. Counseling must maintain a conservative approach in drawing inferences from data on individuals, and depend upon only the clearest evidence; there is evidence that differential tests are superior in efficiency of prediction to general tests, and those working in the field firmly expect that various combinations of scores on differential tests will prove even more efficient in prediction as research proceeds. Among clinicians, there is growing popularity of the WISC with its profiled scores over the single score Terman-Merrill; it is, however, questionable that this popularity has clear application to the counseling process. A well-founded generalization indicates that special factors of intelligence are not apparent at early ages, but emerge with more clarity in the course of development in the high school years. Even here, however, the aptitude test scores may be adequate for short-range predictions, but there is, as yet, little firm evidence that further development may not effect changes in the relative importance of such factors for long-range predictions. The

prime requisite for the use of tests by counselors is that the inferences made be useful in the planning of the individual counselee.

Pertinent to the issues involving the use of these two types of tests are questions regarding the purposes of guidance and counseling. There are implications that counseling is only the opposite side of the same coin as selection and classification--that instruments proved useful for prediction of success in a selection process can serve similarly in a guidance process, if they can be validated on a sufficiently broad number of educational and occupational criteria. The ultimate objective of the selection or classification officer is not the same as that of the counselor who is concerned with the happy and productive individual. The counselor is not concerned with selecting students for a particular institution or industry nor with classifying them in terms of occupations, but with using whatever instruments permit the identification of talent which the school can help the individual to develop. There is an uneasy feeling that counselors may be seduced into being the unwitting tool of the status-seeking of college admissions officers.

Instruments may be validated for prediction of immediate performance, but guidance seeks to open up the vision of the individual for immediate decisions so as to form a basis for decisions in future life. The study of counseling with women indicates that guidance in educational decisions and vocational planning must take into account a much longer time-span than the school encompasses or the predictive studies include. Guidance in the individual's long-range planning

involves a changing culture and, therefore, changing criteria toward which the process leads; prediction in the guidance process is thus more complex than that involved in selection.

In achieving the purpose of inducing the individual to use information about self in planning, research can suitably seek to answer such questions as: By what process can the counselor communicate information about the self so that it is incorporated into personal planning? To what extent can such information be absorbed by individuals? With what variables does this differ - personal, environmental, cultural? What behavior can be taken as evidence of readiness for information about self? Is the student considered ready for information because he says that he wants to know about himself?

Research on criteria must deal with two aspects, theory and definition. Perhaps the criteria may be different in terms of the different levels of the school or different age levels for which tests are designed. Perhaps we need to investigate new kinds of criteria in addition to educational and occupational--can we glean any hints from current research? It seems fruitful to move in the direction of more rationally defined criteria instead of empirically defined. The use of the "critical incident technique" defines the successful worker and his characteristics and seems to be superior to ratings of supervisors as a basis for criteria. The best definition comes from such a rational basis combined with data from proficiency tests. Another approach asks what kind of roles are there to be filled? Thus the criteria are described in terms of the range of social roles required

and the individual is considered in terms of suitability to fill these roles or any one of them. A difficulty in this approach is that some roles may exist in actuality, but may be unrelated to the chief purposes of the job itself. Even here, we may ask if the role is important to organizational or institutional purposes, making distinction between the success of the individual and his part in the achievement of the organization. Little work has been done on the coordination of the "critical incident technique" with role theory. The use of situational variables has generally been neglected in criterion studies, although several approaches show the pertinence of such variables as the presses in college environments, and variables related to teaching situations. In counseling, such variables are considered crucial once it is shown that the individual possesses a minimum of the traits essential for task performance. Grades representing academic performance may be invalidated as adequate criteria by a supposed "grade-getting ability". There is some evidence that a motivational factor generalized in the life of the individual determines the level of grades satisfactory to him, and he somehow maintains this level even when the demands of the situation change.

It is expected that Project Talent can compare the future development of talented students under varying conditions, including counselee variables, school variables, and counselor variables. Among counselor variables may be included: experience, training, and differences reflected in two essay statements discussing case materials, and describing an ideal guidance program for a particular school. Some

school variables have been indicated by a study of the high school backgrounds and records of recent Ph.D. graduates. Perhaps a crucial point may result from comparisons of schools with and without a counselor. Guidance in a large school may be more dependent than in a small one on the extent to which the teachers are helped to understand students better.

In addition to these important questions, several specific points in the discussion were explored briefly. What important values in differential testing are sacrificed to "neatness" by including each item in only the one scale where it seems most suitable? There may be missed the interaction effects between traits which may prove more crucial than the level of specific traits. The use of information items as reflection of interests may be based on findings among adults which may not hold up in investigations at earlier ages. Can statistical controls for cultural factors be applied on the assumption of linearity of relationships? May it not be true that underprivilege at some point becomes a motivation rather than a depressant of achievement and aspiration?

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A TWO-DIMENSIONAL DIAGNOSTIC CLASSIFICATION PLAN

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In accordance with the purpose of this conference to review the present status of counseling as it pertains to secondary education and to point up needed areas of research, this paper will be concerned with the individual counseling process and outcomes. I will attempt to consider the topic both from a theoretical point of view and in terms of empirical data.

First, let's consider the variables in counseling.

1. The client's problem. The problem to be solved; the adjustment to be made; the plans to be formulated; the decision to be made. This becomes the goal to be accomplished through counseling.
2. The client's behavior repertoire. The client's abilities, liabilities, knowledges and problem solving skills. These constitute his personal resources at his command which he may bring to bear on the problem which he has sought the counselor's help in solving. It is a truism to say that the client's behavior repertoire is inadequate to solve his problem else he would have no need to consult the counselor.

3. The counselor--his behavior repertoire. This represents the resource which the counselor can bring to bear on the client's problem in their attempts to solve it. This will include the counselor's knowledges, skills, understandings, attitudes and personality.

4. The client--counselor interaction phenomenon. Often this is called the relationship. It results from the interaction of the two personalities and may have direct problem solving power or impact on the problem solving process.

5. The outcome. This is the result of counseling and is presumably pertinent to the client's problem. Evidence of outcome may be observed during the counseling process proper or in the client's past counseling behavior or both.

Now let us consider more fully each of the five variables in counseling.

THE CLIENT: HIS PROBLEM AND BEHAVIOR REPERTOIRE

What Energizes Behavior? Perhaps first we should state what appears to be a basic law of behavior: The primary goal of an organism is to behave in such a fashion that he is able to extract from his environment the satisfaction of his needs not only at the moment but in a sustained manner in the future. Most behavioral scientists agree that the stuff that energizes behavior is the need of the organism. Thus, if we are to modify behavior through counseling we must understand the needs that the client is trying to

satisfy. So that we won't get bogged down by terminology, let us assume that needs and drives are essentially synonymous and that motivation is the kinetic power that needs and drives have to energize behavior.

Various authors have developed lists of needs. Maslow (1954) has ordered needs into a hierarchy according to their power or priority relative to each other. The following list is a modification of Maslow's list. This list contains seven needs: two biological and five psychosocial. These are presented in order of their power or priority with the most powerful one first.

1. Self-preservation. This drive to survive physically has been rather well established in all forms of life. Immediately, we can think of instances in which some other need supersedes this supposedly most basic and powerful one. Suicide, for example, violates this basic drive. It seems to me that in the human organism we must introduce an additional construct here in order to understand self-preservation. Biologists describe self-preservation as a drive for physical survival. However, as we grow and develop, we develop a psychological self as well as a physical self. Somehow these two selves get intertwined. If we consider this drive for self-preservation to encompass both the physical and the psychological self we can leave it stand as the highest priority and most powerful drive. Take, for example, the soldier who throws himself on a live grenade to protect his buddies from certain death; knowing full well that in doing so he will be killed. Some need more powerful than that to survive physically has motivated him. We can explain this act of heroism by

invoking the notion of preservation of the psychological self and postulating that the soldier was acting in accordance with a concept of himself as a good soldier, one loyal to his buddies and one willing to risk his life to protect his buddies.

2. Reproduction of the species. This is the second most powerful drive which biologists have identified. It also seems to be biologically inherited. The absence or malfunction of either the drive to physical survival or drive to reproduce the species will cause that particular genetic strain to die out. We are here today only because our ancestors possessed these two drives in sufficient quantity. The genetic argument is perhaps the most powerful argument for these two biological drives being first in priority in relation to all the other drives.

3. Security. Security is a widely used term and perhaps loosely so at times. Security here has to do with a feeling of confidence that the individual will be able to satisfy his needs now and continuously in the future. When this security need is not satisfied, the person is fearful and apprehensive that he is not or will not be able to interact with his environment so that his needs will be satisfied. The magnitude of this fear may reach catastrophic proportions producing extreme anxiety and panic.

4. Respect for self. Each person needs to feel that he is worthy of dignity and respect. This is an attitude toward self; an approval of oneself. It is not necessarily associated with social or economic status. It is a need of everyone regardless of his status in life.

5. Acceptance by others. This includes heterosexual love, family and other close friendships, and general gregariousness. In adolescence acceptance by peers is highlighted. The interaction and interdependence of respect for self and acceptance by others is so high as to suggest that these two may be one need rather than two.

6. Self expression and accomplishment. We have a need to use our abilities in manners suggested by our interests to create or accomplish something. Ability in itself has drive properties. This expression may take occupational forms or it may take recreational and hobby forms. Ability here is not restricted to intellectual ability.

7. Esthetic experiences. The need for esthetic experience accounts for the existence of art, music, drama, etc.

Maslow's hierarchy principle states that in general until the most basic need has been satisfied in our perception or expectation, but not necessarily in reality, we cannot attend to the higher order but less powerful needs.

The implications for the counselor are two-fold: (1) at what need level is the client functioning or having difficulty functioning? and (2) at what level is the counselor functioning, and is the counselor able to distinguish between his own need level and that of his client? When the counselor understands at what need level the client is having difficulty, he is able to see more clearly the goal of counseling and is able to choose an appropriate counseling method for this instance.

Once we have satisfied our more basic needs, we are then able to

"upshift" and attend to higher order needs. If we find these lower order needs satisfaction threatened, we "downshift" to attend to them.

Now that we have postulated that needs motivate behavior, we are ready to consider the behavior repertoire that we have at our command which we can use to interact with our environment for the purpose of satisfying our needs.

How Does One Develop His Behavior Repertoire? Needs provide the motivating force which energizes behavior and sets the goal to be attained as well. But what sort of behavior does one engage in attempting to satisfy his needs? What patterns of behavior response does he have at his command; i.e., what repertoire of behavior responses does he have available for use? How does he choose a single course of action from among the several that may be in his repertoire? What happens if the choice is wrong? What happens if the behavior repertoire cupboard is bare? Where does counseling fit into such a scheme? These are a few of the questions which must be answered. Pepinsky and Pepinsky (1954) have dealt with several of these questions at length. You will see that my treatment of the questions has been influenced by the Pepinsky's.

We can define behavior repertoire as the total of all behavior responses that the individual is capable of making. We start with our inherited capacities and through maturation and experience build a behavior repertoire. Our behavior repertoire changes or is subject to change with each new experience. Thus, experience becomes the first level in a schematic diagram which we can construct to represent behavior repertoire. (See Figure 1)

BEHAVIOR REPERTOIRE

CODE: E - experience
P - perception of an experience
g - first order generalization
G - second order generalization
G' - third order generalization

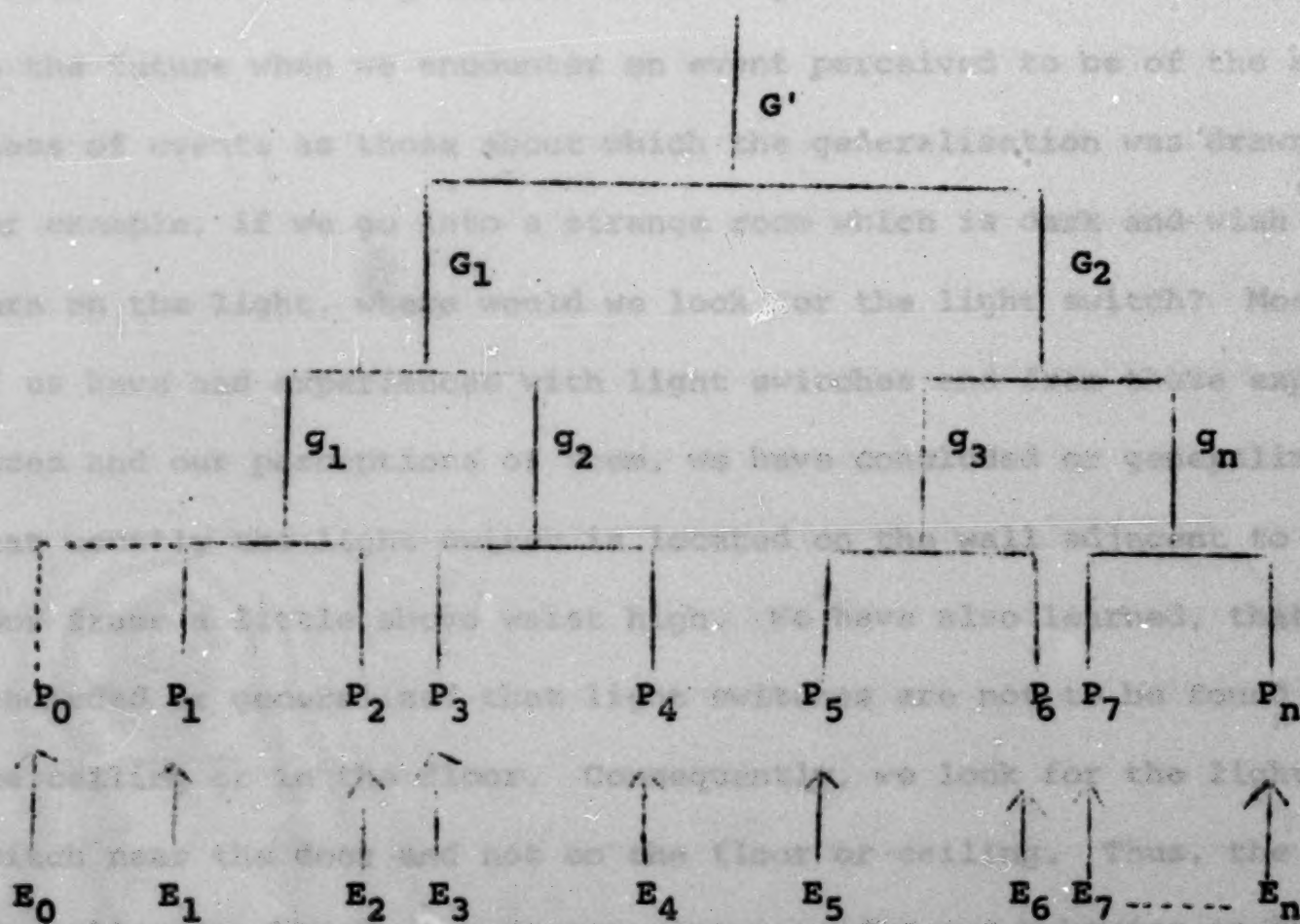


Figure 1: Schematic Diagram of Behavior Repertoire Showing the Relationship of Experience, Perception and Generalization

For our purposes here, experience can be conceived of as being of any unit. Experience is an objective occurrence external to the "psyche."

The second element is perception. Perception is the individual's interpretation of the experience or that which is interiorized by the individual.

The third element is generalization. We seem to have a natural tendency to group perceptions which appear to us to be of a similar kind and draw one rule or generalization from the whole class of events. We use this generalization to guide our behavior at any time in the future when we encounter an event perceived to be of the same class of events as those about which the generalization was drawn. For example, if we go into a strange room which is dark and wish to turn on the light, where would we look for the light switch? Most of us have had experiences with light switches and from these experiences and our perceptions of them, we have concluded or generalized that usually the light switch is located on the wall adjacent to the door frame a little above waist high. We have also learned, that is, concluded or generalized that light switches are not to be found on the ceiling or in the floor. Consequently, we look for the light switch near the door and not on the floor or ceiling. Thus, the generalization based on past experience guides our behavior in this present situation.

However, before we apply a generalization to a new situation we must determine that the new situation is identical for our purpose to the class of situations from which our generalization came. Thus, if the room mentioned above were in a rustic log cabin in an isolated

wooded area we should suspect that there would be neither lights nor light switches in the room. The ability to differentiate between apparently identical situations and actually identical situations must be admitted into the scheme of thinking which we are developing here. Dollard, Auld and White (1953) have indicated that improvement in accuracy of differentiation and discrimination is a major goal in psychotherapy. They describe instances in which psychiatric patients try to apply generalizations developed out of childhood experiences to situations which they encounter as adults. Although the generalizations were valid for the childhood situations, the apparently identical adult situations were in reality not identical, and, consequently, the behavior repertoire employed was ineffective in satisfying the person's needs.

The constellation of all generalizations developed out of past experience gives direction and selectivity to our behavior tendencies in our attempts to interact with present environment to satisfy present needs. If this constellation of generalization which we have labelled behavior repertoire directs our behavior in such a way that our needs are satisfied we can consider it adequate.

When a client comes to a counselor saying, "I have a problem. I would like for you to help me with it," he is, in effect, saying, "My behavior repertoire is inadequate. Will you help me correct the inadequacies?" No matter what languages he uses, in the model we are developing here, that is the translation.

So, what kinds of inadequacies in behavior repertoire can there be? There are three general classes of inadequacies: (1) lack of

experience, (2) distortions in perception, and (3) errors in generalization.

Lack of Experience simply means that we have not had the kind of experience necessary to develop generalizations appropriate for the situation with which we are confronted. This includes lack of information about ourselves as well as our environment. Most counseling effort devoted to increasing understanding of self and the world of work is attacking this first kind of inadequacy. (E_0 in Fig.1)

Distortion in Perception can occur even though our experience or exposure is adequate. For example, our need to regard ourselves highly may be so pressing that we distort or deny all evidence or experience which suggests that we may not be as intelligent or as popular as our current self-concept suggests. Generalizations based on distorted perceptions are apt to be invalid and will direct us into behavior which will not satisfy our needs.

Errors in Generalization are more difficult to describe in concrete terms. We could say that they are faulty logic but this is not very helpful. Errors in grouping perceptions from which we draw a generalization would produce a faulty generalization, but also, there can be errors in actual generalization itself. The process of creating an idea resists definition and description. We can test the validity of an idea, hypothesis or generalization once it has been invented, but we know very little about how these inventions were produced. In our model, we must include errors in generalization even if we cannot describe how they occur.

In addition to the three types of inadequacies, there is a

fourth notion that needs mentioning. That is the spread of effect of errors. Lack of experience or distortion in perception does not stop there. They cause, in turn, erroneous generalization based this time on the original error.

Let us return to our client who has said to us (translated), "My behavior repertoire is inadequate. Will you help me correct the inadequacies?" It seems to me that the problem calls for two discoveries: (1) discovery of the error, and, (2) discovery of a way to correct the error. Who then is to make the discoveries? We have two choices--the counselor or the client. Or, to say it another way, there are two general methods of counseling--(1) client self discovery and (2) counselor discovery followed by interpretation.

THE COUNSELOR'S BEHAVIOR REPERTOIRE

The counselor's behavior repertoire develops and functions in the same manner as described above. It is subject to the same kinds of errors. Presumably, the well-trained counselor has several kinds of responses which he can bring to bear in the client's problem. They can be organized under the two general methods indicated above.

Which Counseling Method is Most Effective in Correcting Which Inadequacy in Behavior Repertoire? This question suggests that the counselor's behavior repertoire should include more than one counseling method. Is there any justification for a counselor being competent in and using more than one counseling method? Or, is some one

counseling method sufficient to solve all client problems? Reasoning by analogy does not always lead to valid conclusions but let's take that risk for a moment.

Suppose that you move to a new town and shortly thereafter you develop a severe head cold. You consult a physician and he gives you a shot of penicillin. You get well. You conclude that he is a good physician. Later on you break your arm. You go back to your physician. He gives you a shot of penicillin and starts to dismiss you. You say, "But, Doc., how about this broken bone? Aren't you going to set it?" He replies, "I don't believe in bone setting. I'm a penicillin man." Do you still consider him a good physician? If not, why not? You would condemn him because he refuses to vary his treatment according to the problem; because he is a one-tool physician. Should we not also condemn counselors for this "one-tool" attitude?

Some counselors restrict themselves to the client self-discovery method solely. Since all of us must agree that counseling is a learning process, at least in some broad sense of the word, let's try another reduction to absurdity. Suppose we instruct every third grade teacher that he is to employ the self-discovery method solely, and, in addition, we set the standard that every third grader must know the multiplication tables before he can go on to the fourth grade. How many grey-bearded third graders would we have hobbling around in our schools because they hadn't yet discovered the multiplication tables? Of course, someone did discover the multiplication tables years ago, but it was not a third grader. However, millions of third graders have learned the multiplication tables by having

them "interpreted" to them. Many a client has learned what occupational groups his interests are similar to through interpretation within a few hours time. Most of these would expend hundreds of hours to acquire the same understanding of themselves by self-discovery method.

I have tried to show that a single counseling method cannot solve certain client problems and will be grossly inefficient with others. But, how about the converse? Can counselor discovery and interpretation be effective in all instances? Let's return to our discussion of distortion in perception. It was shown that distortion in perception can occur even though the client has had adequate and appropriate experience or exposure. Certainly, interpretation by the counselor is an experience or exposure for the client. Therefore, it is quite possible and conceivable that the client may distort or reject a counselor's interpretation which would in turn produce an erroneous generalization. An erroneous generalization is an inadequacy in behavior repertoire so the client is still unable to satisfy his needs. Counseling has failed.

We now come to the major point in this paper. It is absolutely necessary that counseling include differential diagnosis which will form the basis for differential choice of treatment, i.e., counseling method. The only instance in which a counselor would be justified in restricting himself to one method, would be for him to limit his practice to one type of inadequacy. Even then, he would have to engage in diagnosis to determine if this particular client is the type of case he would accept.

Each counselor, whether he admits it or not, draws generalizations (working hypotheses) about his client on a moment-to-moment basis throughout the entire counseling process. On the basis of these hypotheses the counselor determines what his behavior will be, what method he will employ at the next moment. In reality, every counselor employs differential diagnosis and differentially chooses his treatment method accordingly. My plea, simply, is let's make these operations explicit so that we can begin to think about and conduct some research on the effectiveness of various counseling methods in correcting the several kinds of inadequacies in behavior repertoire.

CLIENT-COUNSELOR INTERACTION

So far we have talked as if client and counselor behavior were separate and distinct. To a degree this is true, but it appears that this interaction between client and counselor also is a variable in the counseling equation. This interaction is often referred to as the relationship. Some have postulated that the relationship which obtains between counselor and client may be the most important and fundamental variable in counseling, a variable to which specific counselor responses such as those proposed by Seeman (1948) may be appended according to a variety of situations, clients and counselors (Callis, Polmantier, and Roeber, 1957). It has been further postulated that relationship may be dependent on two factors--understanding and acceptance.

Understanding is essentially a cognitive function involving the counselor's intellect, his knowledge of psychological processes, and

his ability to organize minimal cues in client productions into accurate theories about his client.

Acceptance, on the other hand, is an effective response which is much less influenced by formal learning than is understanding. Acceptance stems at least in part from an abiding belief in and regard for the personal worth and dignity of the client which is not diminished by an acquaintance with the problems, the inadequacies, nor the foibles of the client.

The work of Fiedler (1951), McGowan (1954), and Correll (1955) suggests that adequacy of communication between client and counselor might be a crude first approximation to the quality of relationship in counseling.

OUTCOME

Pepinsky and Pepinsky (1954) define outcome as "the extent to which client behavior subsequent to counseling is a function of what occurs during counseling." This demands the determination of a cause and effect relationship between counseling and the client's post-counseling behavior. There are some intermediate criteria which have been used in smaller segments of the counseling process such as Correll's (1955) "appropriateness of counselor response" which was determined for each response as it occurred in context of the counseling interview and Dollard and Mower's (1947) "distress-relief quotient" which also was used as an outcome criterion assessed within the counseling interview.

It would appear that even though the Pepinskys' definition of outcome is the ideal model, we can quite properly be concerned about

more immediate criteria of smaller units of behavior. It would appear that the criterion of post-counseling behavior would need to be specified for each client individually, i.e., a single criterion should not be applied to all clients. In other words, the desired and intended outcome of counseling is not the same for all clients and therefore, the criterion should not necessarily be the same.

A MODEL FOR FUTURE RESEARCH

The equation for research on counseling might be stated as:

OUTCOME is a function of CLIENT PROBLEM plus CLIENT

BEHAVIOR REPERTOIRE plus COUNSELOR BEHAVIOR

REPERTOIRE plus CLIENT-COUNSELOR RELATIONSHIP

Considerable research has been done on many of the variables that might go into this equation. It appears that research to date has shown that: (1) Counseling data (cases, interviews, etc.) needs to be divided into some sort of homogeneous grouping before fruitful research can be conducted efficiently. For example, a case of vocational indecision due to lack of information about the environment should be analyzed separately from a case of emotional maladjustment due to motivational conflict within self. (2) A more complete specification of relevant variables in counselor behavior must be made than has been done before. For example, Seeman's (1948) classification of counselor responses is only a partial specification of counselor behavior in that the appropriateness of a particular counselor response is not indicated, and the relationship is not evaluated at all. Also, the experienced counselor-novice variable which Fiedler (1951) and McGowan (1954) seem to have discovered is missing entirely

in Seeman's classification. Consequently, any future design of research will need to take these factors into account.

In order to provide a scheme for homogeneously classifying counseling data, we have worked out a two dimensional diagnostic classification plan. This plan should provide a framework for initiating a new series of researches on the nature and effectiveness of counseling.

The fundamental purpose of diagnosis in counseling is to enable the counselor to make predictions about client behavior from which he in turn constructs his plans for handling the client's problem (see Rupp's comment on Sloan and Pierce-Jones, 1958). In commenting on Byrnes (1958), Gilbert cites essentially the same function of diagnosis in counseling: "Thus we could move from an area which corresponds to the learning and problem-solving area of medicine where every ailment was treated in the same way to an area in which different psychological difficulties are handled according to procedures which are especially appropriate to the particular difficulty."

Williamson and Darley (1955) set forth one of the earliest diagnostic schemes where they offered the following categories for client problems: vocational, educational, personal-social-emotional, financial, health and family. Bordin (1946) objected to these because they did not lead to differential choices of treatment. He offered instead a new set of categories which had more precise of

A TWO-DIMENSIONAL DIAGNOSTIC CLASSIFICATION PLAN

The role of diagnosis in counseling has been the object of sporadic attention for the past quarter of a century. In the early history of counseling, diagnosis was accepted as a respectable function in counseling. In the early 1940's doubt was cast on the appropriateness of diagnosis as a part of the counselor's behavior. Now, in the past few years there seems to have been a revival of interest in diagnosis (Apostal and Miller, 1959; Berezin, 1957; Byrne, 1958; Myers, et al, 1960; Sloan and Pierce-Jones, 1958; and Weiner, 1959).

The fundamental purpose of diagnosis in counseling is to enable the counselor to make predictions about client behavior from which he in turn constructs his plans for handling the client's problem (see Hunt's comment on Sloan and Pierce-Jones, 1958). In commenting on Byrne (1958), Gilbert cites essentially the same function of diagnosis in counseling: "Thus we could move from an era which corresponds to the leeching and blood-letting area of medicine where every ailment was treated in the same way to an era in which different psychological difficulties are treated by procedures which are especially appropriate to the particular difficulty."

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leading to differential choice of treatment. Pepinsky (1948) modified Bordin's categories slightly and tested them out on actual case data. Weiner (1959) discussed three "personal adjustment" cases to show the need for careful diagnosis in counseling and inadvertently (perhaps) used the Williamson and Darley categories in his opening paragraph--academic problems, vocational guidance and personal adjustment.

Berezin (1957) contended that neither the Williamson and Darley categories nor the Bordin and Pepinsky categories were adequate in themselves, but that a two-way classification scheme utilizing both could be highly useful in counseling. She constructed such a scheme and tested it against actual case data. Apostal and Miller (1959) modified and simplified Berezin's scheme and again tested it against case data.

In the fall of 1959 the University of Missouri Testing and Counseling Service adopted the Apostal and Miller diagnostic categories scheme and put it into operational use. This section presents a description of the diagnostic categories and some data on the first year's use of it.

THE APOSTAL - MILLER DIAGNOSTIC CATEGORIES PLAN

This is a two-way classification scheme in which both (1) problem-goal and (2) cause is indicated.

Problem goal. This dimension is identical to the Williamson-Darley categories except that only three categories were needed to account for all of our cases. Other agencies might find a need for additional categories, and if so, they could be added to the list.

The three categories are: (1) vocational, (2) emotional, and (3) educational. This specifies not only the type of problem dealt with but also the practical goal of counseling. For example, if the problem is judged to be a vocational one, say, choice of a career by a college freshman, it also specifies the goal to be achieved through counseling, i.e., the choice of an appropriate career by this college freshman.

Cause. The other dimension of the diagnosis is causal. Perhaps it is a little presumptive to suggest that we know enough to determine cause, however, cause here is the same thing that others have labeled psychological or dynamic categories. The five causal categories are: (1) lack of information about or understanding of self, (2) lack of information about or understanding of environment, (3) motivational conflict within self, (4) conflict with significant others, and (5) lack of skill.

The three by five scheme makes possible fifteen different diagnoses. This scheme is open-ended in that additional categories can be added to either dimension if case data show them to be needed. It should be noted at this point that nothing has been said so far in regard to methods the counselor might employ to help the client achieve the desired goal of counseling.

DESCRIPTION OF THE CATEGORIES

Problem-goal. This refers to the developed problem and not necessarily to the presented one. It is the problem which the counselor and client agree to work on and do so.

- (1) Vocational (voc) - career choice and planning, choice of college major and similar educational planning which would ultimately implement or lead to a career plan.
- (2) Emotional (em) - Personal and social adjustment problems which have a primary affective component. Problems of adjustment to current situations involving emotions, attitudes and feelings.
- (3) Educational (ed) - Lack of effective study skills and habits, poor reading ability or lack of information about institutional policies and regulations. Primarily concerned with adjustment to current situation rather than planning for future.

Cause. These categories refer to the probable cause of the developed problem. This classification attempts to answer the question, "Why is the client unable to solve his problem within his own personal resources?"

- (1) Lack of information about or understanding of self (LIS) - The emphasis here is on relatively uncomplicated lack of information. The client simply does not know enough about himself particularly in relation to certain groups. For example, the client may ask, "Am I bright enough to successfully complete the law curriculum?" He may be sufficiently well versed regarding his intellectual ability in relation to his current educational peers but needs additional understanding of himself with respect to some possible future peer group.
- (2) Lack of information about or understanding of the environment (LIE) - This category is similar to LIS above except it refers to the environment rather than self. Occupational and educational stereotypes as well as simple lack of information are included here. LIE may result from lack of experiences, gaps in training or exposure to incomplete data or biased propaganda. Extreme caution must be used in employing this category because of its high social respectability as a reason for inability to solve a problem. A client who persistently distorts the available information about the environment because of strong status

needs should not be diagnosed LIE but probably would be diagnosed LIS or CS.

- (3) Motivational conflict within self (CS) - Conflicting and competing motivations within self and contradictory attitudes toward self predominate in this category. The counselor may employ the notion of unconscious motivation here if that construct is a part of his theory of behavior. Such descriptive terms as intrapunative, self-depreciation, anxiety, and depression may suggest this category. The counselor can often infer a considerable gap between the client's perceived self and his ideal self.
- (4) Conflict with significant others (CO) - At a sufficiently abstract level it can be successfully argued that conflict with significant others is just a special case of motivational conflict within self. However, on an operational level it seems to be useful to distinguish between CS and CO. Conflict with parents and other authority figures, with roommates, girlfriends, or boyfriends are common in this category. In addition to the above, conflicts with new sub-cultural groups are included here. Movement from one geographic region to another or from one socio-economic level to another may produce CO.
- (5) Lack of skill (LS) - Clients who lack the necessary skills to meet the demands of their particular situation whether it be educational, social or vocational, are to be diagnosed LS. Poor reading ability, poor study habits, poor social skills and lack of skill in interviewing a prospective employer are typical of clients diagnosed LS. Problems which are primarily motivational in nature are not to be classified as LS.

The superiority of the two-way classification scheme over either of its component parts used singly can be easily demonstrated. Suppose a client is undecided as to whether to study medicine or business. Both his psychological characteristics and his tryout experiences suggest business contact work, but his father would like for his only son to become a doctor. The client already understands his own psychological characteristics quite well and is convinced that he would enjoy business contact work more than he would the practice of medicine. Yet he cannot make a choice even though he is

at a point where a choice must be made. Obviously his problem is vocational in as much as he must make a decision about his career. The cause of his difficulty is conflict with his father. He would like to follow the dictates of his "self" but is reluctant to "reject" his father. The ultimate result of counseling is to be a vocational decision but the point of emphasis in counseling is conflict with father. Thus, the diagnosis 1 (voc) - 4 (CO) specifies the point of emphasis in counseling as well as the practical and product of counseling.

RECORD KEEPING PROCEDURES

The diagnosis is numerically coded with the problem-goal indicated first and the cause second. An alphabetical control card file is maintained on which the numerical diagnostic code appears. The counseling folder is filed by the two-digit code (and alphabetically within code). By filing the case folders by code it renders the files available to functional use in ways impossible in alphabetical or serially numbered filing plans.

The code file places folders with similar diagnoses in the same physical space in the file. It makes readily available all case folders of a particular diagnosis of all counselors. Thus, you have at your finger tips the entire experience of the agency, and you are not limited to your own cases whose names you can remember. The system is enhanced if the counselor has the courage to make his known errors a matter of record.

The code file is useful to a current staff member in determining a course of action with a current client. It is useful in

orienting a new staff member to the work of the agency and it is a handy arrangement for selecting illustrative cases for training purposes. However, these advantages are minor compared to the research opportunities which the employment of the diagnostic codes creates.

SOME RESEARCH QUESTIONS

1. What is the nature of your clientele in terms of diagnostic code?
2. How much time per case do you devote to different types of cases?
3. How effective are you with different types of cases?
4. Are different methods used with different codes?
5. Are different methods used within a given code? If so, which is most effective?
6. Do different counselors "see" different types of problems? (counselor bias).
7. Is there an agency stereotype resulting from some particular theoretical orientation?
8. Do different populations - high school, college, rehabilitation agency, hospital - yield different patterns (proportions) of diagnoses?

SOME PRELIMINARY ANSWERS

The distribution of 1139 cases by diagnostic code are presented in Table 1. These cases represent about one year's operation since the diagnostic code system was adopted. About half of the cases were diagnosed 1 - 1 (vocational due to lack of information about self). Four codes (1-1, 3-1, 1-2, 2-3) out of a possible fifteen accounted for 77% of the cases. Six codes (1-4, 1-5, 2-2, 2-5, 3-3, 3-4) each accounted for one percent or less of the cases and these six codes combined accounted for only 3.4% of the cases. Myers,

et al (1960) used the Apostol-Miller diagnostic code scheme to describe the first 66 counseling cases in the newly established counseling center at the University of North Dakota. This is presented in Table 2. By comparing Tables 1 and 2 some inter-agency difference can be observed. About three times as many Missouri clientele were diagnosed 1-1 (Voc-LIS) than North Dakota clientele (49% vs. 15%), while about seven times as many North Dakota clientele were diagnosed CO as Missouri clientele (33% vs. 5%).

TABLE 2
The Distribution of the First 66 Cases by Diagnostic Code, University of North Dakota Counseling Center, 1959-60 (after Myers, et al, 1960)

	1(LIS)	2(LIS)	3(CS)	4(CO)	5(LIS)	TOTAL
1(Voc)	15%	9%	2%	10%	0%	36%
2(CS)	15%	0%	15%	11%	0%	41%
3(CS)	3%	5%	9%	12%	2%	31%
TOTAL	33%	14%	26%	33%	2%	100%

TABLE 1

The Distribution of 1139 Counseling Cases by Diagnostic Code, University of Missouri Testing & Counseling Service, 1959-60

	1(LIS)	2(LIE)	3(CS)	4(CO)	5(LS)	Total
1(Voc)	49%	9%	4%	1%	1%	64%
2(Em)	3%	1%	9%	4%	1%	16%
3(Ed)	10%	4%	1%	1%	5%	20%
TOTAL	62%	13%	13%	5%	6%	100%

TABLE 2

The Distribution of the First 66 Cases by Diagnostic Code, University of North Dakota Counseling Center, 1959-60 (after Myers, et al., 1960)

	1(LIS)	2(LIE)	3(CS)	4(CO)	5(LS)	Total
1(Voc)	15%	9%	2%	10%	0%	36%
2(Em)	1%	0%	15%	11%	0%	27%
3(Ed)	8%	5%	9%	12%	3%	37%
TOTAL	24%	14%	26%	33%	3%	100%

TABLE 3

Number of Cases and Mean Number of Interviews by Diagnostic Code, University of Missouri Testing & Counseling Service, 1959-60

		1(LIS)	2(LIE)	3(CS)	4(CO)	5(LS)	Total
1(Voc)	N	563	101	45	12	10	731
	$\bar{X}$	2.26	1.52	2.49	*	*	2.17
2(EM)	N	37	2	102	42	2	185
	$\bar{X}$	4.03	*	6.39	3.86	*	5.32
3(Ed)	N	110	42	5	8	58	223
	$\bar{X}$	2.53	2.00	*	*	2.09	2.23
TOTAL	N	710	145	152	62	70	1139
	$\bar{X}$	2.40	1.66	5.13	3.37	2.00	2.70

* Too few cases to produce stable mean.

The mean number of interviews per case for each diagnostic code for the Missouri sample is presented in Table 3. As might be expected more time was devoted to the "emotional" problems, no matter what the cause, than any other category.

SUMMARY

We have tried to develop a model for research on counseling based on findings to date both in terms of theory construction and empirical data.

The evidence seems to point rather clearly to a need for some diagnostic classification scheme which will both (1) lead to differential choice of treatment, and (2) provide more homogeneous grouping of counseling data so that relevant variables and differences will not be masked.

The evidence also seems to indicate rather clearly a need for a more complete specification of counselor behavior in each instance than has been typical in the past.

Criteria for outcomes of counseling need to be clearly aligned with the client's problem in each case rather than uniformly applying criteria to all cases regardless of client problem or counselor's therapeutic intent.

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SUMMARY

Discussion Following Callis Speech

Applications of the diagnostic categories system clarified its usefulness in research in several ways. The applications may include analysis of the past records which is useful though often not significant for research. Use of past records may indicate plans for systematic recording in the future, and, for the most productive research, a design dictates specific information needed.

The model proposed is based on an analogy with medical diagnosis and treatment. It may be doubted that a medical analogy is as suitable or productive as a model based on a process such as learning. Super's work distinguishes vocational choice as a process, and counseling itself is considered a process. The contradiction may be only apparent, since in the developmental process of choice, counseling touches the life-line of the individual at a brief period and is an attempt to direct its course only in certain respects. If, however, counseling is conceived as preparing the counselee to make future choices more adequately as a result of the counseling contact, perhaps the analogy to medical diagnosis does not fit, and these categories may not be mutually exclusive. This model departs from the medical pattern in that the determination of diagnostic category is made at the end of the counseling contact rather than preceding treatment. Classification might be done at admission, however, and could be done more quickly by use of a checklist. Data processing equipment may be

used suitably to determine alternative choices the individual may make in terms of the information about him. Medical diagnoses have been made by such processes. To alleviate fears that mechanization may arouse, data processing should be used only at points peculiarly suited to its use. Such use could guard against changing the relationship between counselor and counselee, but could, instead, enrich the resources of the counselor.

There is some doubt that we are ready at this point to attempt research encompassing the whole counseling process and its long-range outcomes. Perhaps it is more suitable, in the present state of knowledge, to choose given variables within the process and attempt to find more immediate consequences of these variables. Immediate results, however, may differ markedly from the ultimately desired long-range outcomes in the life of the individual. It is expected from present knowledge that disorganization often precedes a new synthesis, thus giving the appearance that counseling shows short-range effects opposite to those intended. Long-range effects may require a latency period, but allowing an elapse of time may introduce uncontrolled variables into the results. These considerations affect research on the basic question: do different treatments produce different results. Evidence that treatment variables affect results is less firm than that different counselors produce different results.

Systematic study of either is difficult in that pre-designed variation in treatment may restrict the counselor's choice of behavior and unduly affect research findings.

A plan for inter-institutional cooperative research was considered possible, including a dozen or so institutions; several institutions have been engaged in such cooperation. From discussion of this larger plan, the range of possibilities was explored downward in size to the individual carrying out a research project based on an hypothesis and a simple research design, the most usual form at present,

The larger plan would attempt to ally a number of institutions in essential agreement on categories of clients' problems, treatment, outcomes, nomenclature, and perhaps on theory. Some doubt was evidenced that verbal agreement does indeed represent actual agreement in practice. There is concern that the very efforts toward agreement interfere with cooperation. The maximum size of program might draw off much talent into some "dead end". Fears exist that the present state of knowledge is not yet advanced enough to afford a basis for agreement or for cooperation in such an undertaking. It is possible that we are now in need of some "sub-assembly", such as finding specifications for relevant variables in counselor behavior or in effect on the client.

A slightly less demanding program might be based on some "open system", with minimum agreements among fewer institutional groups, allowing individuals to propose projects which can fit into the loosely organized system. There exists at present some arrangements of this nature.

Even less organizational requisites might result in several institutional groups joining in a beginning work conference, exchanging

ideas, keeping each informed of the activities of the others, and following a schedule of continuing work conferences. These might result, at least, in more agreement over a period of time rather than preliminary agreements.

Some opinion seemed to indicate that support for research should continue to rest on faith in the individual researcher who seeks support for a small design, enlarging the project later as results are evaluated. A question arose as to the possibility of support being granted to an individual who has a large amount of data he needs to organize in order to propose hypotheses and design.

A description was given of the broadening type of research sponsored by the National Institute of Health. The Cooperative Research Branch may see movement in the same direction, from individual projects, to programs, to centers, and eventually to the support of an institution for continuing research.

Are findings of research in counseling with college students and adults generalizable to the process in high schools, or are these features unique to the age-level and the institutional setting? A study of the status of counseling in public schools is needed to approach this question. One unique feature of public school counseling seems to be the extension of the work of the counselor beyond the one-to-one relationship of the interview to include communications inducing other adults to participate in control of the conditions affecting the student. Research must include the total school setting, the family, and those agencies of the community which affect the

student. Research centers might include public schools, or certain groupings of public schools might institute research internally.

Difficulties are encountered in carrying on research in public schools unless the results are primarily aimed at improvement of the school itself, and this is seldom the chief purpose. Adequate control of variables is rare, so that contamination of the findings often occurs. A crucial question is what are suitable means of making research findings available to and effective in public school programs.

Research Conference
University of Georgia
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Implications of Research on Group Procedures
for the Secondary Schools

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As I studied the objectives for this conference, I began wondering whether I knew enough to do what was expected. I knew that I could review the research and cite the major weaknesses in the various studies, but I questioned my ability to suggest new research approaches for correcting some of the most serious weaknesses in the research. For at least two reasons this is difficult: (1) we don't know enough, and (2) we do our research in a setting in which we can control only a limited number of the forces that could influence change in clients as much as the treatment.

Since most of us do our research in a school setting, we have to be satisfied with something less than perfect controls. Sometimes we compromise more than is necessary. Goldstein's (1959) admonition is one that we should re-read periodically:

"...applied psychology has developed a tradition of hasty approximations, and laxity with respect to error... It is routine for a nonrigorous applied psychologist to ask himself:

'How much sloppiness can I permit and still have something?'

"It must be granted that scientific discoveries can be made, on occasion, in spite of abundant experimental error...Nonetheless, error must properly be viewed as a matter for discomfort and admitted only when there is no alternative. Psychologists

working in the applied tradition repeatedly miss opportunities for progress, because they sample where they might have controlled or accept imperfect connections where avoidable error has prevented them from investigating the possibility of full determinacy."

Definition of Terms

One of the first problems one meets when he reviews the literature on group procedures is confusion of terms. This problem is so serious that there are times when the reader has difficulty determining what treatment was actually provided for clients. In this paper I shall review the literature concerned with two types of treatment: group counseling and group guidance. To do this I feel that first I must try to differentiate between counseling and psychotherapy. In our own research (Ohlsen and Proff, 1960) we used the terms counseling and psychotherapy to describe the same process. We said that individual counseling is to individual psychotherapy what group counseling is to group psychotherapy, and that the clients' level of adjustment determines whether it is counseling or psychotherapy. We chose the term group counseling to indicate that we were working with normal students in a non-medical setting.

With reference to the relationship between individual and group treatment Lewis (1947) said, "Group psychotherapy is basically a special application of the principles of individual treatment to two or more persons simultaneously, which brings also into the situation the phenomena and problems of interpersonal relationships... The underlying aim of group therapy is to introduce therapeutic activity

designed to direct the individual's efforts toward useful understandings and to clarify the psychological conflicts that they may be transformed into a normal way of living."

In group counseling, as in individual counseling, the counselor draws upon all of his professional resources, both his knowledge of human behavior and of counseling techniques, to understand his clients and to help them talk about the problems which bother them. Clients learn to discuss private matters--topics which they feel must be kept confidential. Hinckley and Hermann (1952) said this process may be identified by: "(1) the therapeutic aim of the unit, with lack of group goal; (2) the alleviation of emotional tensions by sharing experiences, a process involving catharsis, the partial reliving of old experiences and increasing self-awareness; (3) the permissive and supportive role of the therapist; (4) the direct interest and attack on personal problems in order to foster attitudinal modifications." In one sense Hinckley and Hermann were right, the group does not have a problem which all of its members are trying to solve, and in that sense they have no common goal. In another sense the members do have common objectives: to try to understand each other and to help each solve his own problem in his own way.

In contrast the leader of guidance groups provides information on educational, vocational, and social problems and encourages the members of the group to discuss this information. What Hinckley and Hermann have called social group work can be readily applied to group guidance activities. They said that this type of group activity may be characterized by the leader providing information or leading a

discussion designed to socialize members or to help them achieve some group objectives.

Research on Group Counseling

Lifton (1954), Dreese (1957), and Hoyt and Moore (1960) were disappointed by the lack of research evidence to support the case for group treatment in a school setting. I too found this to be the case. Therefore, I have included some studies which were conducted in medical settings because I concluded that the results seemed to have implications for school practices.

In all too many school systems counseling is provided for only high school students. Buchmueller, Porter, and Gildeau (1954) contend that for effective prevention and treatment these services should be provided earlier. They found that by treating the mothers of behavior problem children enrolled in elementary schools, they improved the behavior of 80% of the children. Russell (1959) also provided group counseling for the mothers of boys who were retarded readers and remedial reading for the boys. In general, significant growth between pre- and post-testing was not obtained. However, he did find that when correlations were computed between mothers' attitude change, without regard to direction of change, and boys' reading gains a significant $r (+.83)$ was obtained for the experimental group whereas low r 's were obtained for the control groups. He concluded that mothers in the experimental group learned to express their real feelings and that group counseling contributed to change in mothers' attitude and to sons' reading progress. Two years earlier, Shatter (1957) conducted a similar study. She counseled all 24 fourth grade

retarded readers, and half of their mothers, once a week for 36 weeks. No special remedial reading was provided for any of the boys. The boys in the experimental group improved their reading, increased acceptance of self, and improved school behavior. However, mothers in experimental group failed to improve significantly their attitudes toward children.

Baymur and Patterson (1960) compared three methods of assisting underachieving high school students. Though the results obtained were not significant, the best results were obtained in terms of positive changes in self concept by those counseled on an individual basis and in terms of improved grade point averages by those counseled in groups. This is one case in which the authors are to be congratulated for describing frankly the counselor's limitations.

Broedel, Ohlsen, Proff, and Southard (1960) described a project in which four groups of underachieving ninth graders were counseled in groups of 7 or 8. Growth of clients was evaluated in terms of grades earned, scores on achievement test battery, responses to a Picture Story Test, and observations made by the clients, their parents, and the members of observer teams. The investigators concluded that three out of the four groups made significant growth. Positive changes in clients were noted in improved scores on the achievement test, increased acceptance of self and others, and improved ability to relate to peers, siblings, and parents. Generally, the data obtained in the 15 or 18 month follow-up indicated that the original gains were maintained. Two powerful hostile clients intimidated the other clients in the fourth group to such an extent that members were

unable to develop a therapeutic climate until the last few sessions when one of these hostile members became so threatened that he withdrew from the group (Katz, Ohlsen, and Proff, 1959).

Caplan (1957) provided group counseling for junior high school boys who were referred by teachers and described as unruly, antisocial, unteachable or incorrigible. They were counseled once a week for ten weeks. Positive changes included increased self-ideal (from Q-sorts) correlations, improved grades, and improved marks in citizenship. No follow-up was done to determine whether growth was maintained after treatment.

Daniels (1958) reported on a project in which 24 upper-middle-class eighth-grade boys were divided in four groups for study: (1) received group therapy by a male therapist, (2) received group therapy by a female therapist, (3) received group therapy with two therapists present--male and female, and (4) was a control group. The members of the control group lost interest in school work, deteriorated in arithmetic, and did not improve on any measure. Group treated by male therapist improved social, emotional, and intellectual behavior and exhibited no deterioration anywhere. Those treated by female therapist improved in social behavior, attitude toward male peers, self confidence, faith in the future, and acceptance of male sexual role and exhibited no deterioration. Finally, those treated by two therapists had as many or more losses than gains: they improved in defiance to discipline, over-activity, and social behavior, but became more hostile toward school, less confident of themselves and the future, and more reluctant to adopt male sexual role. Staples (1959)

did a companion study with girls and obtained very similar results. Greatest improvement was achieved by the group of girls treated by the male therapist. Results obtained by two therapists were even more unfavorable than Daniels' results with boys. Both concluded that group treatment by two therapists simultaneously was injurious to adolescents.

On pre- and post-testing Gerstein (1951) found that juvenile delinquents in the experimental group changed significantly, and in a positive direction, whereas members of the control group did not change with reference to: (1) their scores on Wechsler-Bellevue and Stanford Achievement Tests, and (2) emotional security and social maturity as revealed on Haggerty-Olson-Wickman. In general, those who were counseled became less inhibited and evasive, more productive, more responsive to mature promptings from within, and better able to establish wholesome relationships with others.

Kaufman (1959) assumed that readiness for group therapy was a function of certain social and personality variables: I, past group experiences; II, neurotic symptoms; III, frustration tolerance; IV, desire to relate to others; and V, attitudes toward siblings. Prior to treatment all subjects were rated on these five factors on a five-point scale. Twenty-four adolescents were treated in a psychiatric clinic for a children's court: (a) 7 girls by a female social worker, (b) 7 boys by a male psychiatrist, (c) 6 boys by a male social worker, and (d) 4 boys by a male psychiatrist. Those who improved began therapy with significantly lower ratings than those who failed to improve, on paired, and total, combinations of factors

I, II, and V. Thus, the readiness hypothesis was refuted: the lower the pretherapy ratings on certain factors, the greater the tendency to improve. He concluded that the practice of rejecting clients on the basis of low readiness should be re-evaluated.

Sister McCarthy (1959) divided 24 bright, underachieving ninth-grade boys into four groups (2 experimental, and 2 control) and provided 6 one-hour counseling sessions in which clients' attention was directed to disguised case materials based on the boys' own problems. Clients were to ferret out problems in each case, diagnose failures, and plan remedial measures. Clients did not make significant growth. When a client's own case materials were discussed he tended to become defensive. Analysis of verbal interactions indicated clients manifested a need for more information about their ability, aptitudes, interests, and goals. The investigator concluded that they wanted to assess their post-high school plans.

Marks (1958) reported on results he obtained in treating pre-adolescent boys (ages 8-12) who came from poor homes in a slum area. Although the boys did not want help prior to treatment, they did come to accept treatment, to see how they could help others, and to increase their sense of personal worth.

Ryan (1958) tested the hypothesis that involvement in group therapy would be related to or be a function of capacity for mutual dependence. He defined it in terms of (a) potential for giving: ability to empathize with others, develop relationships with others, capacity to delay gratifications of needs and derive satisfaction from gratifying needs of others; and (b) management of dependency

wishes: extent to which an individual accepts or denies his wishes to have other persons gratify his needs for him. Special Rorschach scales were constructed to evaluate growth of the 25 Sc. Patients with high capacity for mutual dependence were more active and involved than their opposites.

Stranahan, Swartzman, and Atkins (1957) presented their clinical analysis of what happened to potential delinquents who were treated in groups. The boys' (age 13-15) reactions in course of a three-year period passed through three phases: (1) after a short period of good behavior, they began acting out, and making demands on the therapist--there was little interaction among clients except for horse-play and teasing; (2) they expressed positive feeling and exhibited dependency; and (3) they revealed genuine concern for others. Cheating, wildness, and obscene language disappeared. Therapist's attitude of helpfulness carried over into group. There was a marked decrease in truancy and delinquency and improved behavior in home and school. Similar results were obtained for the girls' groups. Though girls at first seemed to be more conforming, and less hostile, they really were not. Cultural and racial differences among members proved to be more important in the girls' groups. Girls also required more individual sessions. These investigators concluded that patients who can profit from this experience must have some capacity for insight, a degree of flexibility, desire for growth, and some experiences early in life with an authority figure who possessed some measure of steadiness, helpfulness, direction, and maturity. They also said that, in addition to proper training,

the therapist must be capable of genuine acceptance of, and empathy for, the patient with all of his weaknesses and of giving wisely timed interpretations.

Fiedler (1949) found that three out of four groups profited from preventative group psychotherapy designed to help students face comprehensive examinations. The conflict within the fourth group was so devastating that little came from it.

Gorlow, Hoch, and Teleschow (1952) treated 17 graduate students in three groups, bi-weekly, for 18-20 sessions. A reliable method was developed for assigning members to most and least profited groups. All members perceived themselves and others more favorably after therapy. Most profited members showed significant decrease in negative outlook. Most profited members exhibited more positive, and less negative, behavior; they also increased their positive behavior and decreased negative activity during treatment, whereas there was no significant change in least profited members' behavior.

Marx (1959) compared the effectiveness of individual and group counseling with underachieving college freshmen. Differences in academic achievement were noted in favor of those counseled on individual bases, but neither proved to be clearly superior to control group.

Shelden and Landsman (1950) found that failing college students who were counseled in groups improved their grades more, and a one-year follow-up indicated that fewer of them had left school than the members of the control group who were enrolled in a study skills course.

Except for the changes in manifest needs, Garza and Ohlsen (1961) concluded from their statistical analysis of test data that short-term group counseling failed to improve the mental health of essentially normal individuals. They noted the following significant changes in manifest needs: increase in autonomy, heterosexuality, and achievement, and decrease in abasement, succorance, and nurturance. However, projective test data obtained in follow-up testing showed increased acceptance of self. Finally, it should be noted that the clients themselves not only concluded that counseling helped them but they described specific ways in which they had been helpful: e.g., better understanding and acceptance of self and more at ease with others.

Nash, Frank, Gliedman, Imber, and Stone (1957) found that most patients who rejected group therapy after a brief exposure to it had their symptoms intensified in the group. This was indicated by higher scores on the Discomfort Scales than in initial testing. They also observed that those who dropped out of group therapy were more ineffective socially, irresponsible, withdrawn, and impulsive than those who accepted it. The doctor also was an important factor in determining whether patients accepted therapy.

Though Powdermaker's and Frank's (1953) research was concerned with hospitalized veterans of World War II, a number of their findings appeared to me to be relevant for counselors of secondary school students (their data were obtained from nine groups of patients who were treated by seven psychiatrists). In the initial stages too little direction resulted in intense completion which in turn upset

the patients unnecessarily; and too much direction inhibited the appearance of neurotic patterns and encouraged patients to do what they thought the doctor wanted them to do. In the early meetings patients needed more support from the doctor than in the later ones. Eventually patients sensed others' genuine interest in them and were better able to accept criticism and to use it. No conclusion was reached on the extent to which patients treated in groups need individual treatment. Seeing a doctor regularly did seem to drain off meaningful material for group discussion; also the doctor's suggestion that the problem could be handled in the group often enabled the patient to deal with it there. Involving the members of the group in determining whether a member needed an individual session with the doctor proved to be helpful to the patient involved and to make the rest of the group less resentful toward that patient when he received the help. They also concluded that the doctor's personality was fully as important for successful treatment as the composition of the group. However, not all the problems were due to the doctor's personal problems; some were due to lack of experience as group therapist. Finally, they found the following techniques to be most helpful in promoting patient growth: (1) making generalizations from one patient's remarks in the hope that others would see them as having relevance to their own problems; (2) emphasizing similarity between problems, experiences, emotions, and so forth, of two or more patients; (3) repeating or paraphrasing a patient's statements to clarify them for other members of the group; (4) encouraging mutual respect by referring questions to another patient or to the group as a whole;

(5) emphasizing the continuity of meetings by reviewing the important events of one meeting at the beginning of the next; (6) applying general statements to the immediate group situation; and (7) discussing the relationships being established between patients--provided the doctor believes that this will not provoke much anxiety.

From his analysis of the dynamics of group psychotherapy with psychoneurotic patients Malone (1948) concluded that the effectiveness of group psychotherapy varied with the personality of the therapist. "The therapy leader must be permissive in his attitude and able to wait patiently for the therapeutic effect to come from within the group. He must be able to accept aggression passively, to tolerate group disorganization, and to withhold his counsel (interpretations) until the group asks for it and are primed to accept it. He must remain completely objective in his relationship to the group, and make no decisions or judgments nor accept responsibility for group affairs. He must not be authoritative or punitive in his relationship with group members, nor must he identify with or support one patient more than he does any other one. His primary function is that of interpretation and originating the therapeutic tradition, and as this develops and the patients are more and more able to interpret themselves and to transmit their knowledge of psychodynamics to incoming patients, his active role is gradually usurped by the therapeutic tradition. In the group most effective therapeutically, the leader is least active."

These findings can be briefly summarized as follows: Where successful the treatment of secondary school age youth in groups increase

their acceptance of themselves and of others; improved their ability to relate to peers, parents, and teachers; increased their confidence in themselves and in the future; improved school achievement; and decreased anti-social behavior. The counselor should select the members of a group with care; a combination of certain resisting, hostile members can make it difficult, if not impossible, for the rest of the group to develop a therapeutic climate. Finally, the success with which adolescents have been treated in groups varied with the personality and professional competencies of the counselor.

Research on Group Guidance

Though a variety of group procedures have been recommended for helping secondary school students, few have been evaluated by systematic research, and most of this research has been concerned with appraisal of the effectiveness of vocational guidance.

Lewin's, Lippitt's, and White's (1939) work with elementary school boys is reviewed here because of its relevance for secondary school youth in their struggle for independence. They found that as meetings progressed in the authoritarian group there developed among members a pattern of aggressive domination toward one another and submission to the adult leader. The interactions of members in the democratic group were more spontaneous, more fact minded, and friendly. Hostility was 30 times as frequent in the autocratic as democratic groups. Aggression was eight times as frequent; much of it was directed toward two scapegoats, but none toward the autocrat. Nineteen out of 20 boys liked the democratic leader better, and seven out of ten liked their laissez-faire leader better than their autocratic

leader.

Biersdorf (1958) appraised the effectiveness of group guidance procedures with beginning college students. She concluded that neither group interpretation of vocationally relevant tests taken by students nor a combination of group interpretation of tests and a discussion of numerous factors related to vocational plans were effective.

Though they labelled what they did as counseling, Belovsky's, McMasters' and Shorr's (1953) treatment method was primarily concerned with testing and test interpretation. The 1950 seniors were given individual assistance while the 1951 seniors were given assistance in groups. Essentially the same results were obtained in both groups (e.g., where individual methods were used 58% made realistic choice versus 57% for those helped in groups).

Cuony and Hoppock (1954) evaluated the effect of a job finding and job orientation course for high school seniors. The experimental group earned a significantly higher job satisfaction score and better salaries than the control group. Also more of the experimental group availed themselves of counseling than did the control group. Five years after the course was taught Cuony and Hoppock (1957) did another follow-up. Again the members of the experimental group earned a significantly higher job satisfaction score. They also were employed significantly more weeks of the year than were members of the control group.

Gibbons (1960) appraised the effectiveness, with eighth graders, of a group guidance unit designed to stimulate pupils' self-appraisal

with relation to educational and vocational planning. The text used focused attention on immediate decisions concerning choice of high-school curriculum and its relationship to educational and vocational opportunities. When the data obtained from pupils in post-treatment interviews were compared with those obtained in pre-treatment interviews, the investigator noted that the pupils had increased their awareness of their abilities and inadequacies, of factors to consider in a curriculum choice, of factors to consider in an occupational choice, and of their interests and values and their relation to occupational choice.

Hoyt (1955) used college freshmen to compare the effectiveness of group guidance with individual vocational counseling; and he described precisely what the group treatment was. No significant differences were found between the two experimental groups. Members of both experimental groups became significantly more certain of their vocational choice and more satisfied with their choice, but for only those who were given group guidance were their choices more realistic than those in the control group.

Lowenstein and Hoppock (1955) assessed the effect of an occupations course (offered in grade 12) on students' college adjustment during their freshman year. This is another good example of one of the few cases in which the treatment process was carefully described. Those in the experimental group earned better grades and devoted more time to extra-class activities, and more of them had made a vocational choice, than did those in the control group.

In an effort to determine whether an orientation program

increased the effectiveness of counseling, Richardson and Borow (1952) also used college freshmen. Those who had the orientation scored higher on the attitude-information test than the control group; the members of the control group also reported more points of dissatisfaction with counseling than did the experimental group. For the remaining evaluations no significant differences between the groups were found: (1) total client verbalizations, (2) ratio of client talk to counselor talk, (3) judges' ratings of the effectiveness of interviews, and (4) clients' ratings of over-all value of the counseling.

Stone (1948) evaluated the effectiveness of vocational orientation courses for college freshmen. The members of the experimental group obtained more information about jobs than the members of the control group. However, the investigator concluded that the course alone did not cause students to make more appropriate vocational choices in terms of their abilities, aptitudes, and interests than did mere residence in college. The vocational orientation course served as a preparation for counseling and tended to reduce the amount of time necessary for the resolution of vocational and educational problems.

Grater's (1959) work represents a very different type of study. He studied the effect of a leadership-training course on participants' attitudes toward themselves and others. He found that there was a significant reduction in their discrepancy between ideal self and real self, but no significant change in the discrepancy between ideal self and the generalized other person.

Kobliner (1959) investigated the success of a pre-entrance orientation course for junior high school students and found that it failed to influence significantly their behavior in the junior high school.

Miller (1958) used the Bogardus Scale to determine whether un-directed discussion by secondary school students changed their attitudes toward certain national groups. Undirected group discussion did increase tolerance toward the nationalities in the experimental groups significantly more than was noted for the control groups.

Earlier Wieder (1954) conducted a study similar to Miller's with college students. Two group procedures were used: student-centered instruction accompanied by sociodrama, and the traditional lecture-discussion. He found that student-centered classroom instruction and sociodrama modified attitudes associated with racial, religious, and ethnic prejudices. Members of the student-centered group also increased significantly self-concept and acceptance of self scores.

Williams (1959) assessed the effectiveness of an orientation course in reducing the number of problems of first year college women. Members of the experimental group checked significantly fewer problems in the Mooney Problem Check List than did the control group in post-testing.

Though concerned with adults, Zimet's and Fine's (1955) study is included here because of its relevance for in-service education and counselor education. They provided school superintendents two types of instruction in a human relations seminar and evaluated changes in their attitudes and behavior. While initially these men were more

defensive in the group-centered climate, it contributed more to a rapid and sustained positive gain than did the content-centered seminar. For the group-centered instruction positive changes were noted in attitudes toward self, other adults, and children. Their behavior also indicated that they developed less need to be in command and became more concerned about understanding, respecting, and aiding others.

For group guidance procedures the evidence is not clear-cut. Where best results were obtained I got the impression that the experiences provided for students were typically more therapeutic than instructional and that the leader was a competent, experienced worker. Some of the significant changes noted were increased confidence in the vocational choice, increased satisfaction with the vocational choice, and improved attitude toward self and others.

Implications for Secondary Schools

A recent estimate by the American Personnel and Guidance Association and U. S. Office of Education was that twice as many counselors are needed as we now have (AAAS Report, 1958). Obviously, it will take time to properly educate such a large number of qualified counselors. Therefore, the profession must bend every effort to better utilize the present staff as well as to produce more qualified counselors. Appropriate use of group procedures is one of the things that can be done to make more efficient use of the counselor's time. Another is to discard or improve group guidance procedures which fail to help youth.

Group counseling is not a substitute for individual counseling.

Some students respond best in groups; others profit most from individual counseling. Still others seem to need both to improve their academic and personal adjustment. Because group counseling enables a counselor to help more students each day, some educators have hoped that it may be substituted for individual counseling. The time required, and therefore the cost, must not be the basis on which this decision is made; educators must be primarily concerned with the best service for each individual. The eventual cost to society of a mal-adjusted person far exceeds any saving which could come from eliminating a counselor to save a few thousand dollars.

On the other hand, group counseling does seem to be particularly appropriate for adolescents. Their special needs include conformity with and acceptance of their peer group, opportunity to share ideas and to obtain reactions from their peers, occasion to participate in worthwhile activities, chance to better understand themselves and to define meaningful life roles for themselves, and independence from adults, especially parents. These needs tend to be satisfied within an effective counseling group. With varying degrees of depth each client discovers: (1) that his peers have problems too; (2) that, in spite of his faults, which his peers want to help him correct, they accept him; (3) that at least one adult, the counselor, can understand and accept him; (4) that he is capable of understanding, accepting, and helping his peers; (5) that he can trust others; and (6) that expressing his own real feelings about himself, others, and what he believes helps him to understand and accept himself.

Ackerman (1955) and Berman (1954) also found that all too

frequently adolescents were brought to counseling and psychotherapy against their own will. They were made to feel that they were culprits, and that whatever the difficulty was they were the ones who should be expected to change. Though I am certain that they would not argue for forcing most clients to seek treatment, they did find that as adolescents discovered within the group the conditions described in the previous paragraph, they were able to accept treatment. In particular, Ackerman found that adolescents became intrigued with the idea of reaching behind mere talk to understand how their peers really felt and to help these peers to understand and to cope with these feelings.

Implications for Research

Before I describe some of the most serious weaknesses I noted in reviewing the research for this paper, I should like to call your attention to Allen's (1960) paper in Science: "Why Are Research Grant Applications Disapproved?" Among all the reasons he reported, the following stand out:

(1) The proposed tests, or methods, or unscientific procedures are unsuited to the stated objectives.

(2) The problem is of insufficient importance or is unlikely to produce any new or useful information.

(3) The investigator does not have adequate experience or training, or both, for this research.

(4) The description of the approach is too nebulous, diffuse, and lacking in clarity to permit adequate evaluation.

(5) The over-all design of the study has not been carefully thought out.

- (6) The investigator appears to be unfamiliar with recent pertinent literature or methods, or both.
- (7) The investigator's previously published work in this field does not inspire confidence.

I have divided this last section of my paper into four parts:

- (1) the selection of subjects for experimental and control groups;
- (2) the appraisal of clients' growth; (3) the treatment process; and
- (4) the development of research personnel. In each instance I shall comment on some of the weaknesses that I noted and make suggestions for correcting some of them.

The Selection of Subjects

This area alone presents many serious problems for those who do research in counseling within the school setting: (1) difficulty of obtaining clients of the type desired who recognize the need for help themselves; (2) a large enough sample to adequately test hypotheses; (3) cooperation of teachers and administrators in order to provide adequate control of research subjects' experiences outside of treatment and to exchange essential information in order to make treatment most effective and to reinforce it in other school experiences; (4) adequate information on clients prior to assigning them to groups for various types of treatment; and (5) adequate time for appraisal of client growth.

Obviously, the investigator needs some control subjects with which to compare the growth achieved by those in the experimental groups. To obtain adequate data on the control subjects they must be identified and tested. Whether the investigator uses a control

for the experimental subjects or uses others for control subjects, some who are ready for counseling must be forced to forego or postpone treatment. Even when they are treated later, they tend not to be as good prospects for successful treatment as when they first recognize the need for assistance. There is no happy solution to this problem.

Neither is there an easy solution to the problem of adequate size sample. Even with markedly better financing of research than we had a few years ago, investigators can obtain only a limited number of competent counselors to provide the counseling.

On the other hand, I see some promising approaches for solving some of the other problems in this area: (1) selecting cooperating schools which serve as research centers--schools staffed by persons who recognize the need for research and are ready to contribute to it; and (2) better planning of research projects with the assistance of cooperating school staff. Obviously, even when both are done one cannot insure success. Among the staff one almost always finds someone who would ignore youth's need for help rather than to risk the possibility of rocking the boat. However, these sources of resistance can be lived with when the over-all climate is favorable.

Those who are employed in cooperating schools sense genuine satisfaction from helping the profession solve some of its important problems. They also become more curious about ways of solving some of their own professional problems by systematic research and in helping both their fellow teachers and university colleagues with their research. To enlist this cooperation investigators must understand clearly what they propose to do and how it will help youth, and be

able to communicate these ideas to school colleagues.

Another technique which shows promise for providing subjects for research in counseling is a good training center for supervised practice in counseling. Where these centers have established a reputation for good service to the schools, staff members usually can obtain from referring schools subjects of the type desired for research. In addition to providing a large pool of clients from which the staff can select the type of client needed for a research project, this approach has the further advantage of providing clients who have accepted the need for counseling.

The Appraisal of Growth

In the studies I reviewed for this paper I noted four types of problems: (1) inadequate instruments for appraising growth of normal youth; (2) no follow-up to determine whether growth was maintained;

(3) failure to set goals for individual clients and to select appropriate instruments to appraise growth in terms of these goals; and (4) failure to obtain systematic clinical descriptions of clients' behavior--a technique which could provide useful data for studying growth patterns, for defining goals for various types of clients, and for selecting standardized instruments for future research.

To improve our research this means that we must enlist the help of our colleagues in tests and measurement in building instruments which are sensitive enough to detect changes in those normal persons who seek a counselor's help. We also must try to define goals for our clients and appraise growth in terms of these goals. Of course, this complicates our statistical analyses of our data--it means that

where individual clients are expected to move in opposite directions on a common dimension of adjustment we will not be able to group the data. We also will be plagued with the problem of deciding how much movement is significant change for an individual.

The Treatment Process

Earlier I alluded to the two serious problems I note here:

(1) failure to adequately describe the treatment provided; and (2) failure to report the qualifications of the counselor or group leader. A technique can be appraised fairly only when the treatment is provided by a qualified person. As a profession we should give serious consideration to this problem. The time has come to define more carefully the qualifications for various guidance and personnel workers and to appraise the quality of professional education provided for these workers.

Research Personnel

Finally, I should like to comment on the need for more qualified research workers who possess the scholar's love of learning and are committed to do research. Better financial support alone cannot solve this problem, but it has helped. It has provided funds for conferences like this one. It also has enabled investigators to embark on large, long-range projects, and at the same time to provide research experience for both graduate students and post-doctoral people. For the young post-doctorate who showed promise for research while still in graduate school such an experience is often all that he needs to motivate him to initiate his own research.

Better still we should identify these bright young people while they are undergraduates and provide them with challenging learning and research experiences. Recently I learned of a program which shows promise for doing just that. It is a special undergraduate program offered in a college of education for top scholars who are interested in research and college teaching. Other unique features of this program include basic academic preparation for researchers in the social sciences-e.g. mathematics through integral calculus, introduction to a number of related disciplines, special courses tailored to meet their needs-e.g. a high-level seminar on the teaching-learning process, many electives and considerable individual assistance in research and program planning.

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SUMMARY

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group procedures. Could research help us determine those who could profit from group counseling or individual counseling or both? An extension of this need is to determine where people rate--when are they ready for treatment.

For research purposes perhaps we need to suspend temporarily the idea that people who do not seek counseling cannot profit from counseling. Many probably fail to realize their need for counseling.

No doubt much counselor time is wasted attempting to call every student in for counseling once a semester or once a year when there is no real evidence of a problem. This is especially true after grading period when counselors frequently want to know "why are you doing so poorly?" In reality we need to educate persons as to what counseling is--sometimes we have built up a negative picture of counselors and counseling. In this connection a systematic review of cases without calling in the student could help the counselor maintain a balance in perspective regarding all cases.

When exploring the research related to group work, does one encounter a research bias--a sort of evangelism for group work? There is always the likelihood that those in social science research

SUMMARY

Discussion Following Ohlsen Speech

As we continue to explore the ideas expressed in the papers we have read, we recognize that there are additional areas to examine. Certainly one major area which warrants our consideration relates to group procedures. Could research help us determine those who could profit from group counseling or individual counseling or both? An extension of this need is to determine where people rate---when are they ready for treatment.

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When exploring the research related to group work, does one encounter a research bias---a sort of evangelism for group work? There is always the likelihood that those in social science research

who want to "help" might be prone to find their hypothesis proved.

A major problem of group counseling centers around concepts and definitions. It is frustrating to some to try to reconcile the concepts and definitions as reported in the literature, e.g. Warters and Driver. Many seem to think group counseling is fine for schools but much of what was reported in this paper was done in clinics, hospitals, or centers, not schools. Who and how will those be trained who do this group work?

Don't we have something in the high school setting that makes it a laboratory comparable to groups outside the school? Perhaps we have been focusing research on a stereotype of group interactions thus limiting ourselves and overlooking the anthropological approach. Certainly we must come to the point of discovering how to assess what makes the difference in human behavior.

Undoubtedly there is considerable waste in the ordinary, traditional group guidance. If we are going to try to improve, we must do it in a way not too far removed from what is. There are certainly different kinds of groups---attitudinal, instructional, group therapy, and others. Should we lay down the unvarying dictum that a specific type of group work could not be done except by trained group workers; and if we say that, what type training would this person need to conduct this type group work? When we define the process and the goals for the process, then we have to define the qualifications of the researcher but we can't lump these things together. Let us first

define the process in terms of the activity! We certainly need to put some order into all these approaches being used as treatment.

The questions continue to confront us---who is going to do the research? How do you get the persons to do the research? At least one opinion that was voiced suggested that evaluative types of research probably requires a more objective point of view than that held by most counselors. Perhaps the group work should be done by one individual(s) and evaluative study by someone with different competencies. However, this concern--as well as others--might be resolved if we could find different levels of counseling and learn to distinguish and describe what happens at various levels. In any event, we certainly need to know who does the research.

As we continue to emphasize the apparent desirability of an interdisciplinary approach to research we should be aware that some feel that sociologists, anthropologists or others are not often willing to leave their discipline to work as a stranger in another. They might be willing to talk about their work but the results would be meager. On the other hand, this opinion was not generally accepted. Rather it was proposed that to call upon one from a related discipline was one thing when he was to help someone else, but quite another when he was asked to use the joint research endeavor as a laboratory to test his own views.

Specifically it was suggested that it would likely be a fruitful undertaking if we could move in the direction of establishing

university research centers in which interdisciplinary facilities and personnel would be ready and willing to undertake research programs. Furthermore, these laboratory facilities should be closely related to the school in such a way as to insure that suitable clientele are available. Centers would need to rotate around a guidance department and be centered on the guidance and counseling idea. Where these situations exist, research, demonstrations, and follow-up conditions can be related to the school situation. Hopefully this or any other arrangement for research would obviate the problem of proving something in such a specific way it cannot be generalized.

The remainder of the discussion dealt with further exploration of the points already identified and pointed up additional ones. The following statements may be regarded as reflecting in summary form the major ideas expressed:

1. Research in the field of counseling needs to be encouraged.

Possible ways are:

- a. Encourage the establishment of continuing research in schools
- b. Arrange seminars and bring together teams of doctoral candidates or others
- c. Identify bright young recent graduates interested in research and make it possible for them to pursue their research interests. Get them before they get tied-up with other duties

2. Move more in the direction of establishing research program rather than complete concentration on research projects.

Oftentime the emphasis on projects places emphasis on rigor

because rigor can be judged. It frequently appears, though, that those in position to make grants are biased in favor of projects which are set-up as controlled experiments.

Could someone take the problem of how great discoveries were actually generated? We have a "hunch" that at the stage in which this happened the person was in the midst of a lot of fuzzy thinking. But we beat ourselves over the head with design which may prevent us from thinking.

3. Sometimes it is important to think and try to bring together what has already been done in order to formulate more clearly what is a systematic view to others who are at the stage where they want to do exploratory studies.
4. In preparing research proposals we frequently could allow for flexibility of design and procedures if we were more careful in the wording of statements. This might enable us to avoid the pedestrian efforts so often evident in research.
5. In addition to looking toward government sponsorship of research we probably should look toward industry for research support. Industry is vitally interested in manpower and has demonstrated this through its research efforts. A few industries might possibly become interested in setting up a cooperative research center.

If we continue to rely on government support of research we must undertake to provide specific information to the

Congress regarding research outcomes and needs. Furthermore the information must be understandable if we ever expect to move from projects to programs.

6. Interdisciplinary research can be conducted effectively when different people ask the same kinds of questions and study the same phenomenon from the standpoint of their own discipline.

7. Additional areas of needed research are:

- What goes into the training of the elementary school counselor
- Additional research in semantics
- Attitudes concerning women and their role in society
- Manpower problems
- Perception--value system of individuals
- Development of instruments to appraise a person's status with regard to outcomes of guidances.

8. Finally steps must be taken to insure more effective dissemination of research findings.

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January 25-27, 1961

"SURVEY OF THE STATUS OF RESEARCH IN GUIDANCE AND COUNSELING"

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Conference Program

SURVEY OF THE STATUS OF RESEARCH IN GUIDANCE AND COUNSELING

January 25-27, 1961

Ralph W. Tyler, General Chairman of Conference
William B. King, Principal Investigator
William R. Carriker, Research Coordinator, U. S. Office of Education

Wednesday, January 25

9:00 a.m.

"Research on Training of Counselors"
Robert H. Mathewson

Discussion Groups*

1:45 p.m.

"Research on Instruments Used by
Counselors in Vocational Guidance"
Leona E. Tyler

Discussion Groups

Thursday, January 26

9:00 a.m.

"Research on Instruments Used by
Counselors in Socio-Educational
Guidance"
John C. Flanagan

Discussion Groups

1:45 p.m.

"Two-Dimensional Diagnostic
Classification Plan for Counseling"
Robert Callis

Discussion Groups

Friday, January 27

9:00 a.m.

"Implications of Research on Group
Procedures for Secondary Schools"
Merle M. Ohlsen

Discussion Groups

*Following each presentation, the discussion will be led by
Mr. Tyler.